



EPHEMERIS OF STARS

ERRATA.

PAGE.

- X. 20th line, for 3h. 52m. read 3h. 53m.
- XI. 3rd line, for 44·55s. read 14·55s.
 - 1 4th line, for 46·76 read 41·76.
 - 2 5th line, for 39·90 read 29·90.
 - 2 Last line, for 44 read 14.
 - 5 15th line, for 40·45 read 49·45.
 - 16 18th line, for 26 read 20.
 - 16 27th line, for 29·80 read 39·80.
 - 18 19th line, for 1115 read 1155.
 - 23 32nd line, for 1240 read 1248.
 - 30 Signs for column *b* read $\times$
 - 36 Signs for column *t'* read $\times$
 - 36 Signs for right column S. T. read —
 - 44 17th line, for 72 read 76.
 - 46 Sign for right column *c* read —
 - 55 Sign for left column *b* read —
 - 60 Sign for left column S. T. read —
 - 61 20th line, for 129·80 read 128·80.
 - 61 28th line, for 74·20 read 75·20.
 - 61 29th line, for 689 read 669.
 - 62 Sign for column *c* read —
 - 65 9th line, for 29 read 39.
 - 70 For Z 22°, 28' S. read Z, 36° 25' S.
 - 71 17th line, for 60·28 read 61·28.
 - 74 Last line, for 1598 read 1578.
 - 75 Columns *c* read same as on page 84.
 - 76 28th line, for 577 read 557.
 - 77 20th line, for 119·27 read 110·27.
 - 77 21st line, for 114·93 read 104·93.

TORONTO, ONTARIO:

PUBLISHED BY KLEIN & McLIVER, 16 JORDAN STREET,
1889.

EPHEMERIS OF STARS

IN THE

VERTICAL OF "POLARIS"

1889

BY

F. L. BLAKE, P.L.S.

PRICE—Limp Cloth Flush, \$2.00. May be had post free on application to the Compiler, Meteorological Office, Toronto, Canada.

The Ephemeris for 1890 is in preparation and will be published during December, 1889.

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EPHEMERIS OF STARS

IN THE

GERMANY OF POLARIS

1889

BY

F. L. BLAKE, P.L.S.

THESE STARS ARE LISTED IN THE 1889 EPH. MAY BE USED FOR THE PURPOSES OF THE
TO THE COMMISSIONER, ASTRONOMICAL OBSERVATORY, TORONTO, CANADA.
THE REPORTS FOR 1889 IS IN PREPARATION AND WILL BE PUBLISHED DURING
OCTOBER, 1890.

PUBLISHED BY KLEIN & McIVER, 10 JORDAN STREET,
TORONTO, ONTARIO.
1889.

EPHEMERIS OF STARS IN THE VERTICAL OF "POLARIS"

— BY —

F. L. BLAKE, P. L. S. AND D. L. S.,

Astronomical Assistant at Toronto Observatory.

This original and convenient Ephemeris by Mr. Blake is the first and only publication of the kind ever attempted.

These tables give the *Time* and *Azimuth* by mere inspection.

They have been compiled after a good deal of labor for the use and benefit of surveyors and engineers generally.

It is intended to do away with calculations altogether, and to afford a ready means of at once determining the *Time* and *Azimuth* of *Polaris* at the moment of observation, thereby giving the astronomical deviation of any line from the meridian by simply noting the readings of the Azimuth plate of the instrument at the time of observation.

This compilation affords by far the easiest and shortest as well as the simplest method of obtaining *Time* and *Azimuth*.

In the calculations necessary for compiling the tables the positions of the stars are those given in the *Berliner Jahrbuch*, and for those that are not found in it the *American Almanac* positions have been used reduced to the Berlin meridian.

The *Sidereal Times* and *Azimuth* of *Polaris* are given for every 20th day throughout the year for the 45th degree of latitude, and the corrections rigidly obtained to the nearest second of arc for the other latitudes, viz.: from 28 to 56° are tabulated under latitude corrections. The other tabulated corrections are very close approximations, rarely giving an error of more than three tenths of a second of time, or three seconds in azimuth.

Great care has been taken in the necessary calculations which have been carefully made and revised, and the selection of stars, consisting of 60 at the upper and 24 at the lower culmination, has been made with due regard to their suitability for observing purposes. For in-

stance, a great many southern stars as also the lower culmination ones have been taken, owing to their low altitude coming within the range of telescopes having no rectangular eye pieces. The stars are the brightest in the brightest in the heavens, and can be observed in twilight with the ordinary glass, thus going away with night work. All the interpolations required (which are no more than in an ordinary almanac) can be made before the observation, with the exception of the time interval corrections in columns *b* and *c*.

With carefully adjusted collimation and axis well levelled no corrections need be applied for these, but in case of doubt as to the collimation error pairs of stars have been inserted of nearly the same declination, and of sufficient interval of time so as to allow of reversal of telescope between the observations thus practically eliminating the collimation error.

METHOD OF OBSERVATION.

The best method of observing would be to select your stars beforehand and make the necessary interpolations, getting your instrument into position a few minutes before the time required, sight on *Polaris* and then swing the telescope to the time star and wait till it appears in the field of view, turn on to *Polaris* again, clamp and bisect accurately by means of tangent screw, noting the time by watch and again revolving the telescope to the time star, note the time of its crossing the wire. The observation is then complete, and the time interval corrections can then be applied and you have the *sidereal time* and *azimuth* of *Polaris*, which may be used in determining the deviation of any line you may be running by noting the readings of the azimuth plate of the instrument at the time of observation.

As a rule with surveyors the *azimuth* is only required which can be taken out without going through the interpolation for *time* thus simplifying matters.

The deviation by this observation can be determined in less than five minutes.

An ordinary watch capable of keeping good time for the interval of two or three minutes between the observations is all that is necessary. No calculations involving the use of logarithms are required, and no other book or almanac is needed, as the tables for converting the *sidereal time* into *mean time* are inserted before the star tables. These are Table II., containing the *sidereal time* of mean noon at Greenwich for every day of the year, and Table III. for converting *sidereal intervals* into *mean time intervals* after the manner of the table in the *American Ephemeris*.

EXPLANATIONS.

In the first column, under Z, will be found the zenith distance of the *time star* followed by the dates.

t and t' are corrections of decimals of a second of the time for each degree of latitude differing from 45, and to be applied with its proper sign to the *S. T.* after multiplying by the difference in latitude. t being used for latitudes south of 45 and t' for places north of 45.

a and a' are similar corrections to be applied to the Azimuth.

LATITUDE CORRECTIONS.

The column *L* is for the latitude.

S. T. and *Az.* are corrections to be applied to the Sid. Time and Azimuth according to their signs.

b contains the corrections to be applied for the interval of time between the observations on *polaris* and the time star. They are decimals of a second and require to be multiplied by the interval in seconds.

c are similar corrections for the Azimuth.

The corrections require the interval between the observations not to be extended much over three minutes.

At the foot of each page of the Star Tables will be found the Zenith Distance of *Polaris* for finding purposes. This distance is for latitude 45 and is not corrected for refraction.

NOTE.—All the above corrections are to be applied to the Sid., T. and Az. columns immediately under the stars name as the different signs are arranged for that purpose.

VI.

EXAMPLE I.

Jan. 20th, 1889.—At a place in latitude $52^{\circ} 36'$ and longitude 90° west. *Polaris* was supposed to be observed at 10h. 33m. 30s. watch time, and Sirius at 10h. 36m. 0s. in the same vertical plane—required the watch error and azimuth of *Polaris*.

Time interval, 150 seconds. Difference of latitude from 45 is $7^{\circ}.6$.

$t' = +0.093 \times 7.6 = +0^{\circ}.71$. $b = +0.007 \times 150 = +1.05$. h. m. s.

Jan. 20th, 1889	S. T. =	6 33 43.58
Cor. S. T. for Lat. $52^{\circ} 36'$	=	— 93.93
Cor. t'	=	+ 0.71
Time interval Cor. b	=	+ 1.05

Sidereal Time

Sidereal Time, M. Noon, 90th Mer

Sidereal interval from Noon

Retardation Table III

Standard Time, 90th Mer

Watch Time

Watch Fast

FOR AZIMUTH.

$\alpha' = -1.08 \times 7.6 = -8^{\circ}.2$. $c = -0.102 \times 150 = -15.3$.

Az	=	$1^{\circ} 47' 0''$
Cor. Az. for Lat. $52^{\circ} 36'$	=	+ 17 43.0
Cor. α'	=	— 0 8.2
Time interval cor. c	=	— 0 15.3

Az. *Polaris*

A rigid solution gives.....S. T., = 6h. 32m. 11.55s. Az., = $2^{\circ} 4' 20''$ W.

EXAMPLE II.

Jan. 20th, 1889.—At a place in latitude $30^{\circ} 12'$ and longitude 90° W. *Polaris* was supposed to be observed at 10h. 57m. 10. watch time, and δ *Draconis* S. P. in same vertical at 10h. 58m. 42s. required the sidereal time and azimuth of *Polaris*.

Time interval, 92 seconds. Difference of latitude from 45 is $14^{\circ}.8$.

$t = -0.067 \times 14.8 = -0.99s$. $b = +0.005 \times 92 = +0.46$. h. m. s.

Jan. 20th, 1889	S. T. =	6 55 4.03
Cor. S. T. for Lat. $30^{\circ} 12'$	=	+ 2 8.88
Cor. t	=	— 0.99
Time interval Cor. b	=	+ 0.46

Sidereal Time

FOR AZIMUTH.

$a = +0.67 \times 14.8 = +9^{\circ}.9$. $c = -0.029 \times 92 = -2.8$.

Az	=	$1^{\circ} 48' 15''$
Cor. Az. for Lat. $30^{\circ} 12'$	=	— 19 50.
Cor. a	=	+ 0 9.9
Time interval cor. c	=	— 0 2.8

Az. of *Polaris*

A rigid solution gives.....S. T., = 6h. 57m. 12.43s. = Az. $1^{\circ} 28' 31''$ W.

TABLE I.

No.	NAMES OF STARS.	SIDERAL TIME.		AZIMUTH OF POLARIS.
		h.	m.	
1	α Cassiopeiæ	0	33	0.21 E
2	γ Cassiopeiæ	0	49	0.13 E
3	ϵ Ursæ Majoris S. P.	0	50	0.12 E
4	δ Ursæ Majoris S. P.	1	19	0. 0 W
5	α Eridani	1	32	0. 6 W
6	β Arietis	1	48	0.13 W
7	α Arietis	2	0	0.19 W
8	β Ursæ Minoris S. P.	2	42	0.39 W
9	γ Ursæ Minoris S. P.	3	10	0.51 W
10	α Persei	3	16	0.54 W
11	δ Persei	3	35	1. 1 W
12	γ Eridani	3	48	1. 7 W
13	η Draconis S. P.	4	12	1.15 W
14	α Tauri (<i>Aldebaran</i>)	4	26	1.20 W
15	β Orionis (<i>Rigel</i>)	5	4	1.31 W
16	α Aurigæ (<i>Capella</i>)	5	8	1.32 W
17	β Draconis S. P.	5	17	1.34 W
18	δ Orionis	5	21	1.35 W
19	ϵ Orionis	5	25	1.36 W
20	α Columbæ	5	27	1.36 W
21	γ Draconis S. P.	5	43	1.39 W
22	α Orionis	5	44	1.40 W
23	β Aurigæ	5	51	1.41 W
24	α Argus (<i>Canopus</i>)	6	9	1.44 W
25	α Lyre (<i>Vega</i>) S. P.	6	24	1.45 W
26	α Canis Majoris (<i>Sirius</i>)	6	33	1.46 W
27	ϵ Canis Majoris	6	46	1.47 W
28	δ Draconis S. P.	6	55	1.47 W
29	α Canis Minoris (<i>Procyon</i>)	7	28	1.47 W
30	ϵ Draconis S. P.	7	29	1.47 W
31	α Cygni S. P.	8	27	1.42 W
32	η Cephei S. P.	8	29	1.42 W
33	ϵ Ursæ Majoris	8	52	1.38 W
34	α Cephei S. P.	9	2	1.36 W
35	α Hydræ	9	17	1.33 W
36	α Leonis (<i>Regulus</i>)	9	59	1.21 W
37	β Ursæ Majoris	10	56	1. 1 W
38	α Ursæ Majoris	10	59	1. 0 W
39	γ Cephei S. P.	11	21	0.51 W
40	λ Draconis	11	28	0.48 W
41	γ Corvi	12	8	0.31 W
42	δ Corvi	12	22	0.25 W

VIII.

TABLE I.—*Concluded.*

No.	NAMES OF STARS.	SIDERAL TIME.		AZIMUTH OF POLARIS.
		<i>h.</i>	<i>m.</i>	
43	α Cassiopeie..... S. P.	12	31	0.21 W
44	γ Cassiopeie..... S. P.	12	48	0.13 W
45	ϵ Ursæ Majoris.....	12	49	0.12 W
46	α Virginis (<i>Spica</i>).....	13	19	0. 0 E
47	ζ Ursæ Majoris.....	13	19	0. 0 E
48	β Centauri.....	13	58	0.18 E
49	α Bootis (<i>Arcturus</i>).....	14	11	0.23 E
50	β Ursæ Minoris.....	14	46	0.39 E
51	β Libræ.....	15	13	0.51 E
52	γ Ursæ Minoris.....	15	15	0.51 E
53	α Persei..... S. P.	15	22	0.54 E
54	δ Persei..... S. P.	15	41	1. 1 E
55	β Scorpii.....	16	3	1.10 E
56	δ Ophiuchi.....	16	12	1.13 E
57	η Draconis.....	16	19	1.15 E
58	α Scorpii (<i>Antares</i>).....	16	28	1.18 E
59	α Aurigæ (<i>Capella</i>)..... S. P.	17	17	1.32 E
60	β Draconis.....	17	26	1.34 E
61	α Ophiuchi.....	17	33	1.35 E
62	γ Draconis.....	17	52	1.39 E
63	β Aurigæ..... S. P.	18	0	1.41 E
64	λ Sagittarii.....	18	28	1.45 E
65	α Lyræ (<i>Vega</i>).....	18	34	1.45 E
66	α Sagittarii.....	18	55	1.47 E
67	δ Draconis.....	19	5	1.47 E
68	ϵ Draconis.....	19	39	1.47 E
69	γ Aquilæ.....	19	45	1.47 E
70	α Aquilæ (<i>Altair</i>).....	19	49	1.47 E
71	α Capricorni.....	20	17	1.45 E
72	α Cygni.....	20	37	1.42 E
73	η Cephei.....	20	38	1.42 E
74	ι Ursæ Majoris..... S. P.	21	1	1.38 E
75	α Cephei.....	21	11	1.36 E
76	β Aquarii.....	21	30	1.31 E
77	α Aquarii.....	22	3	1.22 E
78	α Gruis.....	22	9	1.20 E
79	α Piscis Aust. (<i>Fomalhaut</i>).....	22	58	1. 8 E
80	α Pegasi.....	23	1	1. 1 E
81	β Ursæ Majoris..... S. P.	23	2	1. 1 E
82	α Ursæ Majoris..... S. P.	23	5	1. 0 E
83	γ Cephei.....	23	26	0.51 E
84	λ Draconis..... S. P.	23	33	0.38 E

TABLE II.

AT GREENWICH, MEAN NOON, 1889.

JANUARY.			FEBRUARY.			MARCH.		
Day of the week.	Day of the month.	Sidereal Time or Right Ascension of Mean Sun.	Day of the week.	Day of the month.	Sidereal Time or Right Ascension of Mean Sun.	Day of the week.	Day of the Month.	Sidereal Time or Right Ascension of Mean Sun.
	<i>h. m. s.</i>			<i>h. m. s.</i>			<i>h. m. s.</i>	
Tuesday	1 18 45	18 52	Friday	1 20 47	31 79	Friday	1 22 37	55 20
Wednes	2 18 49	15 08	Satur	2 20 51	28 34	Satur	2 22 41	51 35
Thurs	3 18 53	11 64	Sunday	3 20 55	24 39	Sunday	3 22 45	46 40
Friday	4 18 57	8 20	Monday	4 20 59	21 45	Monday	4 22 49	44 95
Satur	5 19 1	4 76	Tuesday	5 21 3	18 00	Tuesday	5 22 53	41 50
Sunday	6 19 5	1 81	Wednes	6 21 7	14 56	Wednes	6 22 57	38 06
Monday	7 19 8	57 87	Thurs	7 21 11	11 12	Thurs	7 23 1	34 62
Tuesday	8 19 12	54 43	Friday	8 21 15	7 67	Friday	8 23 5	31 17
Wednes	9 19 16	50 99	Satur	9 21 19	4 22	Satur	9 23 9	27 72
Thurs	10 19 20	47 54	Sunday	10 21 23	0 77	Sunday	10 23 13	24 27
Friday	11 19 24	44 10	Monday	11 21 26	57 33	Monday	11 23 17	20 32
Satur	12 19 28	40 66	Tuesday	12 21 30	53 39	Tuesday	12 23 21	17 37
Sunday	13 19 32	37 22	Wednes	13 21 34	50 45	Wednes	13 23 25	13 93
Monday	14 19 36	33 77	Thurs	14 21 38	47 00	Thurs	14 23 29	10 48
Tuesday	15 19 40	30 33	Friday	15 21 42	43 55	Friday	15 23 33	7 03
Wednes	16 19 44	26 88	Satur	16 21 46	40 10	Satur	16 23 37	3 59
Thurs	17 19 48	23 44	Sunday	17 21 50	36 06	Sunday	17 23 41	0 14
Friday	18 19 52	20 00	Monday	18 21 54	33 21	Monday	18 23 44	56 69
Satur	19 19 56	16 56	Tuesday	19 21 58	29 76	Tuesday	19 23 48	53 24
Sunday	20 20 0	13 11	Wednes	20 22 2	26 32	Wednes	20 23 52	49 79
Monday	21 20 4	9 66	Thurs	21 22 6	22 37	Thurs	21 23 56	46 34
Tuesday	22 20 8	6 22	Friday	22 22 10	19 43	Friday	22 0 0	42 30
Wednes	23 20 12	2 78	Satur	23 22 14	15 98	Satur	23 0 4	39 45
Thurs	24 20 15	59 34	Sunday	24 22 18	12 53	Sunday	24 0 8	36 01
Friday	25 20 19	55 90	Monday	25 22 22	9 08	Monday	25 0 12	32 59
Satur	26 20 23	52 45	Tuesday	26 22 26	5 63	Tuesday	26 0 16	29 11
Sunday	27 20 27	49 00	Wednes	27 22 30	2 19	Wednes	27 0 20	25 56
Monday	28 20 31	45 56	Thurs	28 22 33	58 74	Thurs	28 0 24	22 23
Tuesday	29 20 35	42 12				Friday	29 0 28	18 77
Wednes	30 20 39	38 37				Satur	30 0 32	15 32
Thurs	31 20 43	35 2				Sunday	31 0 36	11 37

Difference for one hour + 9^m. 8565

TABLE II.—Continued.

AT GREENWICH, MEAN NOON, 1889.

APRIL.			MAY.			JUNE.		
Day of the week.	Day of the month.	Sidereal Time or Right Ascension of Mean Sun.	Day of the week.	Day of the month.	Sidereal Time or Right Ascension of Mean Sun.	Day of the week.	Day of the Month.	Sidereal Time or Right Ascension of Mean Sun.
		<i>h. m. s.</i>			<i>h. m. s.</i>			<i>h. m. s.</i>
Monday	1	0 40 8.62	Wednes	1	2 38 25.03	Satur	1	4 40 39.37
Tuesday	2	0 44 4.98	Thurs	2	2 42 21.58	Sunday	2	4 44 34.82
Wednes	3	0 48 1.53	Friday	3	2 46 18.13	Monday	3	4 48 31.86
Thurs	4	0 51 58.08	Satur	4	2 50 14.69	Tuesday	4	4 52 27.94
Friday	5	0 55 54.64	Sunday	5	2 54 11.24	Wednes	5	4 56 24.49
Satur	6	0 59 51.19	Monday	6	2 58 7.80	Thurs	6	5 0 21.05
Sunday	7	1 3 47.74	Tuesday	7	3 2 4.36	Friday	7	5 4 17.61
Monday	8	1 7 44.29	Wednes	8	3 6 0.92	Satur	8	5 8 14.17
Tuesday	9	1 11 40.85	Thurs	9	3 9 57.47	Sunday	9	5 12 10.72
Wednes	10	1 15 37.40	Friday	10	3 13 54.03	Monday	10	5 16 7.28
Thurs	11	1 19 33.96	Satur	11	3 17 50.59	Tuesday	11	5 20 3.84
Friday	12	1 23 30.51	Sunday	12	3 21 47.14	Wednes	12	5 24 0.40
Satur	13	1 27 27.06	Monday	13	3 25 43.70	Thurs	13	5 27 56.96
Sunday	14	1 31 23.61	Tuesday	14	3 29 40.25	Friday	14	5 31 53.52
Monday	15	1 35 20.17	Wednes	15	3 33 36.81	Satur	15	5 35 50.07
Tuesday	16	1 39 16.72	Thurs	16	3 37 33.36	Sunday	16	5 39 46.63
Wednes	17	1 43 13.28	Friday	17	3 41 29.92	Monday	17	5 43 43.19
Thurs	18	1 47 9.84	Satur	18	3 45 26.47	Tuesday	18	5 47 39.75
Friday	19	1 51 6.39	Sunday	19	3 49 23.03	Wednes	19	5 51 36.30
Satur	20	1 55 2.94	Monday	20	3 53 19.58	Thurs	20	5 55 32.86
Sunday	21	1 58 59.49	Tuesday	21	3 57 16.14	Friday	21	5 59 29.42
Monday	22	2 2 56.04	Wednes	22	4 1 12.70	Satur	22	6 3 25.98
Tuesday	23	2 6 52.60	Thurs	23	4 5 9.25	Sunday	23	6 7 22.53
Wednes	24	2 10 49.16	Friday	24	4 9 5.81	Monday	24	6 11 19.09
Thurs	25	2 14 45.71	Satur	25	4 13 2.37	Tuesday	25	6 15 15.65
Friday	26	2 18 42.26	Sunday	26	4 16 58.92	Wednes	26	6 19 12.21
Saturday	27	2 22 38.81	Monday	27	4 20 55.48	Thurs	27	6 23 8.76
Sunday	28	2 26 35.37	Tuesday	28	4 24 52.04	Friday	28	6 27 5.32
Monday	29	2 30 31.92	Wednes	29	4 28 48.60	Satur	29	6 31 1.88
Tuesday	30	2 34 28.47	Thurs	30	4 32 45.15	Sunday	30	6 34 58.44
			Friday	31	4 36 41.71			

Difference for one hour + *g*. 8565.

TABLE II.—Continued.

AT GREENWICH, MEAN NOON, 1889.

JULY.			AUGUST.			SEPTEMBER.		
Day of the week.	Day of the month.	Sidereal Time or Right Ascension of Mean Sun.	Day of the week.	Day of the month.	Sidereal Time or Right Ascension of Mean Sun.	Day of the week.	Day of the Month.	Sidereal Time or Right Ascension of Mean Sun.
		<i>h. m. s.</i>			<i>h. m. s.</i>			<i>h. m. s.</i>
Monday	1	6 38 54.99	Thurs	1	8 41 8.26	Sunday	1	10 43 21.45
Tuesday	2	6 42 51.55	Friday	2	8 45 4.82	Monday	2	10 47 18.00
Wednes	3	6 46 48.11	Satur	3	8 49 1.87	Tuesday	3	10 51 44.55
Thurs	4	6 50 44.67	Sunday	4	8 52 57.92	Wednes	4	10 55 11.11
Friday	5	6 54 41.22	Monday	5	8 56 54.49	Thurs	5	10 59 7.66
Satur	6	6 58 37.78	Tuesday	6	9 0 51.03	Friday	6	11 3 4.21
Sunday	7	7 2 34.34	Wednes	7	9 4 47.58	Satur	7	11 7 0.76
Monday	8	7 6 30.90	Thurs	8	9 8 44.14	Sunday	8	11 10 57.32
Tuesday	9	7 10 27.45	Friday	9	9 12 40.70	Monday	9	11 14 53.87
Wednes	10	7 14 24.01	Satur	10	9 16 37.25	Tuesday	10	11 18 50.42
Thurs	11	7 18 20.57	Sunday	11	9 20 33.81	Wednes	11	11 22 46.97
Friday	12	7 22 17.13	Monday	12	9 24 30.87	Thurs	12	11 26 43.52
Satur	13	7 26 13.68	Tuesday	13	9 28 26.92	Friday	13	11 30 40.07
Sunday	14	7 30 10.24	Wednes	14	9 32 23.47	Satur	14	11 34 36.63
Monday	15	7 34 6.80	Thurs	15	9 36 20.03	Sunday	15	11 38 33.18
Tuesday	16	7 38 3.36	Friday	16	9 40 16.59	Monday	16	11 42 29.74
Wednes	17	7 41 59.92	Satur	17	9 44 13.14	Tuesday	17	11 46 26.30
Thurs	18	7 45 56.47	Sunday	18	9 48 9.69	Wednes	18	11 50 22.85
Friday	19	7 49 53.02	Monday	19	9 52 6.24	Thurs	19	11 54 19.46
Satur	20	7 53 49.58	Tuesday	20	9 56 2.80	Friday	20	11 58 15.95
Sunday	21	7 57 46.14	Wednes	21	9 59 59.36	Satur	21	12 2 12.51
Monday	22	8 1 42.70	Thurs	22	10 3 55.91	Sunday	22	12 6 9.06
Tuesday	23	8 5 39.25	Friday	23	10 7 52.47	Monday	23	12 10 5.61
Wednes	24	8 9 35.80	Satur	24	10 11 49.02	Tuesday	24	12 14 2.16
Thurs	25	8 13 32.36	Sunday	25	10 15 45.58	Wednes	25	12 17 58.71
Friday	26	8 17 28.92	Monday	26	10 19 42.13	Thurs	26	12 21 55.27
Satur	27	8 21 25.48	Tuesday	27	10 23 38.68	Friday	27	12 25 51.82
Sunday	28	8 25 22.04	Wednes	28	10 27 35.23	Satur	28	12 29 48.37
Monday	29	8 29 18.59	Thurs	29	10 31 31.78	Sunday	29	12 33 44.92
Tuesday	30	8 33 15.14	Friday	30	10 35 28.34	Monday	30	12 37 41.47
Wednes	31	8 37 11.70	Satur	31	10 39 24.90			

Difference for one hour + 9s.8565

TABLE II.—*Concluded.*

AT GREENWICH, MEAN NOON, 1899.

OCTOBER.			NOVEMBER.			DECEMBER.		
Day of the week.	Day of the month.	Sidereal Time or Right Ascension of Mean Sun.	Day of the week.	Day of the month.	Sidereal Time or Right Ascension of Mean Sun.	Day of the week.	Day of the Month.	Sidereal Time or Right Ascension of Mean Sun.
		<i>h. m. s.</i>			<i>h. m. s.</i>			<i>h. m. s.</i>
Tuesday	1	13 41 38.03	Friday	1	14 43 51.19	Sunday	1	16 42 7.37
Wednes	2	13 45 34.58	Satur	2	14 47 47.74	Monday	2	16 46 4.43
Thurs	3	13 49 31.13	Sunday	3	14 51 44.30	Tuesday	3	16 50 0.99
Friday	4	13 53 27.69	Monday	4	14 55 40.86	Wednes	4	16 53 57.54
Satur	5	13 57 24.24	Tuesday	5	14 59 37.41	Thurs	5	16 57 54.10
Sunday	6	13 1 20.80	Wednes	6	15 3 33.96	Friday	6	17 1 50.66
Monday	7	13 5 17.35	Thurs	7	15 7 30.51	Satur	7	17 5 47.21
Tuesday	8	13 9 13.90	Friday	8	15 11 27.07	Sunday	8	17 9 43.77
Wednes	9	13 13 10.45	Satur	9	15 15 23.63	Monday	9	17 13 40.33
Thurs	10	13 17 7.01	Sunday	10	15 19 20.18	Tuesday	10	17 17 36.89
Friday	11	13 21 3.56	Monday	11	15 23 16.74	Wednes	11	17 21 33.45
Satur	12	13 25 0.11	Tuesday	12	15 27 13.29	Thurs	12	17 25 30.00
Sunday	13	13 28 56.66	Wednes	13	15 31 9.85	Friday	13	17 29 26.56
Monday	14	13 32 53.22	Thurs	14	15 35 6.41	Satur	14	17 33 23.12
Tuesday	15	13 36 49.77	Friday	15	15 39 2.97	Sunday	15	17 37 19.68
Wednes	16	13 40 46.32	Satur	16	15 42 59.53	Monday	16	17 41 16.24
Thurs	17	13 44 42.88	Sunday	17	15 46 56.08	Tuesday	17	17 45 12.80
Friday	18	13 48 39.43	Monday	18	15 50 52.62	Wednes	18	17 49 9.35
Satur	19	13 52 35.98	Tuesday	19	15 54 49.19	Thurs	19	17 53 5.91
Sunday	20	13 56 32.54	Wednes	20	15 58 45.75	Friday	20	17 57 2.47
Monday	21	14 0 29.09	Thurs	21	16 2 42.30	Satur	21	18 0 59.03
Tuesday	22	14 4 25.65	Friday	22	16 6 38.86	Sunday	22	18 4 55.58
Wednes	23	14 8 22.20	Satur	23	16 10 35.42	Monday	23	18 8 52.14
Thurs	24	14 12 18.76	Sunday	24	16 14 31.98	Tuesday	24	18 12 48.70
Friday	25	14 16 15.31	Monday	25	16 18 28.53	Wednes	25	18 16 45.26
Satur	26	14 20 11.87	Tuesday	26	16 22 25.08	Thurs	26	18 20 41.82
Sunday	27	14 24 8.42	Wednes	27	16 26 21.64	Friday	27	18 24 38.38
Monday	28	14 28 4.97	Thurs	28	16 30 18.20	Satur	28	18 28 34.93
Tuesday	29	14 32 1.52	Friday	29	16 34 14.76	Sunday	29	18 32 31.49
Wednes	30	14 35 58.07	Satur	30	16 38 11.31	Monday	30	18 36 28.05
Thurs	31	14 39 54.63				Tuesday	31	18 40 24.61

Difference for one hour + 9s.8565

XIII.

TABLE III.—SIDEREAL INTO MEAN SOLAR TIME.

To be Subtracted from a Sidereal Time Interval.

Sidereal.	0h.		1h.		2h.		3h.		4h.		5h.		For Seconds.	
m.	m.	s.	m.	s.	m.	s.	m.	s.	m.	s.	m.	s.	s.	s.
0	0	0.00	0	9.83	0	19.65	0	29.48	0	39.31	0	49.14	0	0.000
1		0.18		9.99		19.82		29.65		39.48		49.31	1	0.003
2		0.36		10.15		19.98		29.81		39.64		49.47	2	0.005
3		0.49		10.32		20.15		29.98		39.81		49.63	3	0.008
4		0.65		10.48		20.31		30.14		39.97		49.80	4	0.011
5		0.81		10.64		20.47		30.30		40.13		49.96	5	0.014
6		0.98		10.81		20.64		30.47		40.30		50.13	6	0.018
7		1.14		10.97		20.80		30.63		40.46		50.29	7	0.019
8		1.31		11.14		20.97		30.79		40.62		50.45	8	0.022
9		1.47		11.30		21.13		30.96		40.79		50.62	9	0.025
10		1.63		11.46		21.29		31.13		40.95		50.78	10	0.027
11		1.80		11.63		21.46		31.29		41.12		50.95	11	0.030
12		1.96		11.79		21.62		31.45		41.28		51.11	12	0.033
13		2.13		11.95		21.78		31.61		41.44		51.27	13	0.035
14		2.29		12.12		21.95		31.78		41.61		51.44	14	0.038
15		2.45		12.28		22.11		31.94		41.77		51.60	15	0.041
16		2.62		12.45		22.28		32.11		41.93		51.76	16	0.044
17		2.79		12.61		22.44		32.27		42.10		51.93	17	0.046
18		2.94		12.77		22.60		32.43		42.26		52.09	18	0.049
19		3.11		12.94		22.77		32.60		42.43		52.26	19	0.052
20		3.27		13.10		22.93		32.76		42.59		52.43	20	0.055
21		3.44		13.27		23.09		32.93		42.75		52.58	21	0.057
22		3.60		13.43		23.26		33.09		42.92		52.75	22	0.060
23		3.76		13.59		23.42		33.25		43.08		52.91	23	0.063
24		3.93		13.76		23.59		33.42		43.25		53.08	24	0.066
25		4.08		13.92		23.75		33.58		43.41		53.24	25	0.068
26		4.25		14.08		23.91		33.74		43.57		53.40	26	0.071
27		4.42		14.25		24.08		33.91		43.74		53.57	27	0.074
28		4.58		14.41		24.24		34.07		43.90		53.73	28	0.076
29		4.75		14.58		24.41		34.24		44.06		53.89	29	0.079
30		4.91		14.74		24.57		34.40		44.23		54.06	30	0.082
31		5.07		14.90		24.73		34.56		44.39		54.22	31	0.085
32		5.24		15.07		24.90		34.73		44.56		54.39	32	0.087
33		5.40		15.23		25.06		34.89		44.72		54.55	33	0.090
34		5.57		15.40		25.22		35.05		44.88		54.71	34	0.093
35		5.73		15.56		25.39		35.22		45.05		54.88	35	0.096
36		5.89		15.72		25.55		35.38		45.21		55.04	36	0.098
37		6.06		15.89		25.72		35.55		45.38		55.20	37	0.101
38		6.23		16.05		25.88		35.71		45.54		55.37	38	0.104
39		6.39		16.21		26.04		35.87		45.70		55.53	39	0.106
40		6.55		16.37		26.21		36.04		45.87		55.70	40	0.109
41		6.71		16.54		26.37		36.20		46.03		55.86	41	0.112
42		6.88		16.71		26.54		36.36		46.19		56.02	42	0.115
43		7.04		16.87		26.70		36.53		46.36		56.19	43	0.117
44		7.20		17.03		26.86		36.69		46.52		56.35	44	0.120
45		7.37		17.20		27.03		36.86		46.69		56.52	45	0.123
46		7.53		17.36		27.19		37.02		46.85		56.68	46	0.126
47		7.70		17.52		27.35		37.18		47.01		56.84	47	0.128
48		7.86		17.69		27.52		37.35		47.18		57.01	48	0.131
49		8.02		17.85		27.68		37.51		47.34		57.17	49	0.134
50		8.19		18.02		27.85		37.68		47.51		57.33	50	0.137
51		8.35		18.18		28.01		37.84		47.67		57.50	51	0.139
52		8.51		18.34		28.17		38.00		47.83		57.66	52	0.142
53		8.68		18.51		28.34		38.17		48.00		57.83	53	0.145
54		8.84		18.67		28.50		38.33		48.16		57.99	54	0.147
55		9.01		18.84		28.67		38.49		48.32		58.15	55	0.150
56		9.17		19.00		28.83		38.66		48.49		58.32	56	0.153
57		9.33		19.16		28.99		38.82		48.65		58.48	57	0.156
58		9.50		19.33		29.16		38.99		48.82		58.65	58	0.158
59		9.66		19.49		29.32		39.15		48.98		58.81	59	0.161

XIV.

TABLE III.—SIDEREAL INTO MEAN SOLAR TIME.

To be Subtracted from a Sidereal Time Interval.

Sidereal.	8h.		7h.		6h.		5h.		4h.		3h.		2h.		1h.		For Seconds.	
m.	m.	s.	m.	s.	m.	s.	m.	s.	m.	s.	m.	s.	m.	s.	m.	s.	s.	s.
0	0	58:07	1	8:80	1	18:63	1	28:46	1	38:29	1	48:12	0	0:000	0	0:000	0	0:000
1	0	59:14	1	8:97	1	18:80	1	28:63	1	38:45	1	48:28	1	0:008	1	0:008	1	0:008
2	0	59:30	1	9:13	1	18:96	1	28:79	1	38:62	1	48:45	2	0:006	2	0:006	2	0:006
3	0	59:46	1	9:29	1	19:12	1	28:95	1	38:78	1	48:61	3	0:008	3	0:008	3	0:008
4	0	59:63	1	9:46	1	19:29	1	29:12	1	38:95	1	48:78	4	0:011	4	0:011	4	0:011
5	0	59:79	1	9:62	1	19:45	1	29:28	1	39:11	1	48:94	5	0:014	5	0:014	5	0:014
6	0	59:96	1	9:79	1	19:61	1	29:44	1	39:27	1	49:10	6	0:016	6	0:016	6	0:016
7	1	0:12	1	9:95	1	19:78	1	29:61	1	39:44	1	49:27	7	0:019	7	0:019	7	0:019
8	1	0:23	1	10:11	1	19:94	1	29:77	1	39:60	1	49:43	8	0:022	8	0:022	8	0:022
9	1	0:45	1	10:28	1	20:11	1	29:94	1	39:77	1	49:60	9	0:025	9	0:025	9	0:025
10	1	0:61	1	10:44	1	20:27	1	30:10	1	39:93	1	49:76	10	0:027	10	0:027	10	0:027
11	1	0:77	1	10:60	1	20:43	1	30:26	1	40:09	1	49:92	11	0:030	11	0:030	11	0:030
12	1	0:94	1	10:77	1	20:60	1	30:43	1	40:26	1	50:09	12	0:032	12	0:032	12	0:032
13	1	1:10	1	10:93	1	20:76	1	30:59	1	40:42	1	50:25	13	0:035	13	0:035	13	0:035
14	1	1:27	1	11:10	1	20:93	1	30:76	1	40:58	1	50:41	14	0:038	14	0:038	14	0:038
15	1	1:43	1	11:26	1	21:09	1	30:92	1	40:75	1	50:58	15	0:041	15	0:041	15	0:041
16	1	1:59	1	11:42	1	21:25	1	31:08	1	40:91	1	50:74	16	0:044	16	0:044	16	0:044
17	1	1:76	1	11:59	1	21:42	1	31:25	1	41:08	1	50:91	17	0:046	17	0:046	17	0:046
18	1	1:92	1	11:75	1	21:58	1	31:41	1	41:24	1	51:07	18	0:049	18	0:049	18	0:049
19	1	2:09	1	11:92	1	21:74	1	31:57	1	41:40	1	51:23	19	0:052	19	0:052	19	0:052
20	1	2:25	1	12:08	1	21:91	1	31:74	1	41:57	1	51:40	20	0:055	20	0:055	20	0:055
21	1	2:41	1	12:24	1	22:07	1	31:90	1	41:73	1	51:56	21	0:057	21	0:057	21	0:057
22	1	2:58	1	12:41	1	22:24	1	32:07	1	41:90	1	51:73	22	0:060	22	0:060	22	0:060
23	1	2:74	1	12:57	1	22:40	1	32:23	1	42:06	1	51:89	23	0:062	23	0:062	23	0:062
24	1	2:90	1	12:73	1	22:56	1	32:39	1	42:22	1	52:05	24	0:065	24	0:065	24	0:065
25	1	3:07	1	12:90	1	23:13	1	32:56	1	42:39	1	52:22	25	0:068	25	0:068	25	0:068
26	1	3:23	1	13:06	1	23:29	1	32:72	1	42:55	1	52:38	26	0:071	26	0:071	26	0:071
27	1	3:40	1	13:23	1	23:46	1	32:88	1	42:71	1	52:54	27	0:074	27	0:074	27	0:074
28	1	3:56	1	13:39	1	23:62	1	33:05	1	42:88	1	53:11	28	0:076	28	0:076	28	0:076
29	1	3:72	1	13:55	1	23:78	1	33:21	1	43:04	1	53:27	29	0:079	29	0:079	29	0:079
30	1	3:89	1	13:72	1	23:55	1	33:38	1	43:21	1	53:44	30	0:082	30	0:082	30	0:082
31	1	4:05	1	13:88	1	23:71	1	33:54	1	43:37	1	53:50	31	0:085	31	0:085	31	0:085
32	1	4:22	1	14:04	1	23:87	1	33:70	1	43:53	1	53:56	32	0:087	32	0:087	32	0:087
33	1	4:38	1	14:21	1	24:04	1	33:87	1	43:70	1	53:53	33	0:090	33	0:090	33	0:090
34	1	4:54	1	14:37	1	24:20	1	34:03	1	43:86	1	53:69	34	0:092	34	0:092	34	0:092
35	1	4:71	1	14:54	1	24:37	1	34:20	1	44:02	1	53:85	35	0:095	35	0:095	35	0:095
36	1	4:87	1	14:70	1	24:53	1	34:36	1	44:19	1	54:02	36	0:098	36	0:098	36	0:098
37	1	5:03	1	14:86	1	24:69	1	34:52	1	44:35	1	54:18	37	0:101	37	0:101	37	0:101
38	1	5:20	1	15:03	1	24:86	1	34:69	1	44:52	1	54:35	38	0:104	38	0:104	38	0:104
39	1	5:36	1	15:19	1	25:02	1	34:85	1	44:68	1	54:51	39	0:106	39	0:106	39	0:106
40	1	5:53	1	15:36	1	25:19	1	35:01	1	44:84	1	54:67	40	0:109	40	0:109	40	0:109
41	1	5:69	1	15:52	1	25:35	1	35:18	1	45:01	1	54:84	41	0:112	41	0:112	41	0:112
42	1	5:85	1	15:68	1	25:51	1	35:34	1	45:17	1	55:00	42	0:115	42	0:115	42	0:115
43	1	6:02	1	15:84	1	25:68	1	35:51	1	45:34	1	55:17	43	0:117	43	0:117	43	0:117
44	1	6:18	1	16:01	1	25:84	1	35:67	1	45:50	1	55:33	44	0:120	44	0:120	44	0:120
45	1	6:35	1	16:17	1	26:00	1	35:83	1	45:66	1	55:49	45	0:122	45	0:122	45	0:122
46	1	6:51	1	16:34	1	26:17	1	36:00	1	45:83	1	55:66	46	0:125	46	0:125	46	0:125
47	1	6:67	1	16:50	1	26:33	1	36:16	1	45:99	1	55:82	47	0:128	47	0:128	47	0:128
48	1	6:84	1	16:67	1	26:50	1	36:33	1	46:15	1	55:98	48	0:131	48	0:131	48	0:131
49	1	7:00	1	16:83	1	26:66	1	36:49	1	46:32	1	56:15	49	0:134	49	0:134	49	0:134
50	1	7:16	1	16:99	1	26:82	1	36:65	1	46:48	1	56:31	50	0:137	50	0:137	50	0:137
51	1	7:32	1	17:16	1	26:99	1	36:82	1	46:65	1	56:48	51	0:139	51	0:139	51	0:139
52	1	7:49	1	17:32	1	27:15	1	36:98	1	46:81	1	56:64	52	0:142	52	0:142	52	0:142
53	1	7:66	1	17:49	1	27:31	1	37:14	1	46:97	1	56:80	53	0:145	53	0:145	53	0:145
54	1	7:82	1	17:65	1	27:48	1	37:31	1	47:14	1	56:97	54	0:147	54	0:147	54	0:147
55	1	7:98	1	17:81	1	27:64	1	37:47	1	47:30	1	57:13	55	0:150	55	0:150	55	0:150
56	1	8:15	1	17:98	1	27:81	1	37:64	1	47:47	1	57:29	56	0:153	56	0:153	56	0:153
57	1	8:31	1	18:14	1	27:97	1	37:80	1	47:63	1	57:46	57	0:156	57	0:156	57	0:156
58	1	8:47	1	18:30	1	28:13	1	37:96	1	47:79	1	57:62	58	0:158	58	0:158	58	0:158
59	1	8:64	1	18:47	1	28:30	1	38:13	1	47:96	1	57:79	59	0:161	59	0:161	59	0:161

XV.

TABLE III.—SIDEREAL INTO MEAN SOLAR TIME.

To be Subtracted from a Sidereal Time Interval.

Sidereal.	12h.		13h.		14h.		15h.		16h.		17h.		FOR SECONDS.	
m.	m.	s.	m.	s.	m.	s.	m.	s.	m.	s.	m.	s.	s.	s.
0	1	57.95	2	7.78	2	17.61	2	27.44	2	37.27	2	47.10	0	0.000
1	1	58.11		7.94		17.77		27.60		37.43		47.26	1	0.008
2	1	58.28		8.11		17.94		27.77		37.60		47.43	2	0.005
3	1	58.44		8.27		18.10		27.93		37.76		47.59	3	0.008
4	1	58.61		8.44		18.26		28.09		37.92		47.75	4	0.011
5	1	58.77		8.60		18.43		28.25		38.09		47.92	5	0.014
6	1	58.93		8.76		18.59		28.42		38.25		48.08	6	0.016
7	1	59.10		8.93		18.76		28.59		38.42		48.24	7	0.019
8	1	59.25		9.09		18.92		28.75		38.58		48.41	8	0.022
9	1	59.42		9.25		19.08		28.91		38.74		48.57	9	0.025
10	1	59.59		9.42		19.25		29.08		38.91		48.74	10	0.027
11	1	59.75		9.58		19.41		29.24		39.07		48.90	11	0.030
12	1	59.92		9.75		19.58		29.40		39.23		49.06	12	0.033
13	2	0.08		9.91		19.74		29.57		39.40		49.23	13	0.035
14	2	0.21		10.07		19.90		29.73		39.55		49.39	14	0.038
15	2	0.41		10.21		20.07		29.90		39.73		49.56	15	0.041
16	2	0.57		10.40		20.23		30.06		39.89		49.72	16	0.044
17	2	0.74		10.58		20.39		30.22		40.05		49.88	17	0.046
18	2	0.90		10.76		20.56		30.39		40.22		50.05	18	0.049
19	2	1.06		10.99		20.72		30.55		40.39		50.21	19	0.052
20	2	1.23		11.06		20.89		30.72		40.54		50.37	20	0.055
21	2	1.39		11.22		21.05		30.88		40.71		50.54	21	0.057
22	2	1.55		11.39		21.21		31.04		40.87		50.70	22	0.060
23	2	1.72		11.55		21.38		31.21		41.04		50.87	23	0.063
24	2	1.89		11.71		21.54		31.37		41.20		51.03	24	0.066
25	2	2.05		11.88		21.70		31.53		41.36		51.19	25	0.068
26	2	2.21		12.04		21.87		31.70		41.53		51.36	26	0.071
27	2	2.37		12.20		22.03		31.86		41.69		51.52	27	0.074
28	2	2.54		12.37		22.20		32.03		41.86		51.69	28	0.076
29	2	2.70		12.53		22.36		32.19		42.02		51.85	29	0.079
30	2	2.86		12.69		22.52		32.35		42.18		52.01	30	0.082
31	2	3.03		12.85		22.69		32.52		42.35		52.18	31	0.085
32	2	3.19		13.02		22.85		32.68		42.51		52.34	32	0.087
33	2	3.36		13.19		23.02		32.85		42.67		52.50	33	0.090
34	2	3.52		13.35		23.18		33.01		42.84		52.67	34	0.093
35	2	3.68		13.51		23.34		33.17		43.00		52.83	35	0.096
36	2	3.85		13.68		23.51		33.34		43.17		53.00	36	0.098
37	2	4.01		13.84		23.67		33.50		43.33		53.16	37	0.101
38	2	4.18		14.01		23.83		33.66		43.49		53.32	38	0.104
39	2	4.34		14.17		24.00		33.83		43.66		53.49	39	0.106
40	2	4.50		14.33		24.16		33.99		43.82		53.65	40	0.109
41	2	4.67		14.50		24.33		34.16		43.99		53.81	41	0.112
42	2	4.83		14.66		24.49		34.32		44.15		53.96	42	0.115
43	2	4.99		14.82		24.65		34.48		44.31		54.14	43	0.117
44	2	5.16		14.99		24.82		34.65		44.48		54.31	44	0.120
45	2	5.32		15.15		24.98		34.81		44.64		54.47	45	0.123
46	2	5.49		15.32		25.15		34.97		44.80		54.63	46	0.126
47	2	5.65		15.48		25.31		35.14		44.97		54.80	47	0.128
48	2	5.81		15.64		25.47		35.30		45.13		54.96	48	0.131
49	2	5.98		15.81		25.64		35.47		45.30		55.13	49	0.134
50	2	6.14		15.97		25.80		35.63		45.46		55.29	50	0.137
51	2	6.31		16.13		25.96		35.79		45.62		55.45	51	0.139
52	2	6.47		16.30		26.13		35.96		45.79		55.62	52	0.142
53	2	6.63		16.46		26.29		36.12		45.95		55.78	53	0.145
54	2	6.80		16.63		26.46		36.29		46.12		55.94	54	0.147
55	2	6.96		16.79		26.62		36.45		46.28		56.11	55	0.150
56	2	7.12		16.95		26.78		36.61		46.44		56.27	56	0.153
57	2	7.29		17.12		26.95		36.78		46.61		56.44	57	0.156
58	2	7.45		17.28		27.11		36.94		46.77		56.60	58	0.158
59	2	7.62		17.45		27.28		37.10		46.93		56.76	59	0.161

XVI.

TABLE III.—SIDEREAL INTO MEAN SOLAR TIME.

To be Subtracted from a Sidereal Time Interval.

Sidereal.	18h.	19h.	20h.	21h.	22h.	23h.	For Seconds.
m.	m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	s. s.
0	56.59	5.76	16.59	25.42	36.25	46.08	0.000
1	57.09	5.93	16.75	25.56	36.41	46.24	0.008
2	57.23	7.08	16.91	25.74	36.57	46.40	0.005
3	57.42	7.25	17.08	25.91	36.74	46.57	0.006
4	57.58	7.41	17.24	27.07	36.90	46.73	0.011
5	57.75	7.58	17.41	27.21	37.06	46.89	0.014
6	57.91	7.74	17.57	27.40	37.23	47.06	0.016
7	58.07	7.90	17.73	27.56	37.39	47.22	0.019
8	58.24	8.07	17.90	27.73	37.56	47.39	0.022
9	58.40	8.23	18.06	27.89	37.72	47.55	0.023
10	58.57	8.40	18.23	28.05	37.88	47.71	0.027
11	58.73	8.56	18.39	28.22	38.05	47.88	0.031
12	58.89	8.72	18.55	28.38	38.21	48.04	0.033
13	59.06	8.89	18.72	28.55	38.38	48.21	0.033
14	59.22	9.05	18.88	28.71	38.54	48.37	0.034
15	59.38	9.21	19.04	28.87	38.70	48.53	0.041
16	59.55	9.33	19.21	29.04	38.87	48.70	0.044
17	59.71	9.54	19.37	29.23	39.03	48.86	0.046
18	59.88	9.71	19.54	29.37	39.19	49.02	0.049
19	0.04	9.87	19.70	29.53	39.36	49.19	0.053
20	0.23	10.03	19.86	29.69	39.52	49.35	0.055
21	0.37	10.23	20.03	29.86	39.69	49.52	0.057
22	0.53	10.35	20.19	30.02	39.85	49.68	0.060
23	0.70	10.53	20.35	30.18	40.01	49.84	0.063
24	0.86	10.69	20.52	30.35	40.18	50.01	0.066
25	1.02	10.85	20.68	30.51	40.34	50.17	0.069
26	1.19	11.02	20.85	30.68	40.51	50.33	0.071
27	1.35	11.18	21.01	30.84	40.67	50.50	0.074
28	1.51	11.34	21.17	31.00	40.83	50.66	0.076
29	1.68	11.51	21.34	31.17	46.00	50.83	0.079
30	1.84	11.67	21.50	31.33	41.16	50.99	0.082
31	2.01	11.84	21.67	31.49	41.32	51.15	0.085
32	2.17	12.00	21.83	31.66	41.49	51.32	0.087
33	2.33	12.16	21.99	31.82	41.65	51.48	0.090
34	2.50	12.33	22.16	31.99	41.82	51.65	0.093
35	2.66	12.49	22.32	32.15	41.98	51.81	0.096
36	2.83	12.65	22.48	32.31	42.14	51.97	0.098
37	2.99	12.82	22.65	32.48	42.31	52.14	0.101
38	3.15	12.98	22.81	32.64	42.47	52.30	0.104
39	3.32	13.15	22.98	32.81	42.63	52.46	0.106
40	3.48	13.31	23.14	32.97	42.80	52.63	0.109
41	3.64	13.47	23.30	33.13	42.96	52.79	0.112
42	3.81	13.64	23.47	33.30	43.13	52.96	0.115
43	3.97	13.80	23.63	33.46	43.29	53.12	0.117
44	4.14	13.97	23.80	33.63	43.45	53.28	0.120
45	4.30	14.13	23.96	33.79	43.62	53.45	0.123
46	4.46	14.29	24.12	33.95	43.78	53.61	0.126
47	4.63	14.46	24.29	34.12	43.95	53.78	0.129
48	4.79	14.62	24.45	34.28	44.11	53.94	0.131
49	4.95	14.78	24.61	34.44	44.27	54.10	0.134
50	5.12	14.95	24.78	34.61	44.44	54.27	0.137
51	5.28	15.11	24.94	34.77	44.60	54.43	0.139
52	5.45	15.28	25.11	34.94	44.76	54.59	0.142
53	5.61	15.44	25.27	35.10	44.93	54.76	0.145
54	5.77	15.60	25.43	35.26	45.09	54.92	0.147
55	5.94	15.77	25.60	35.43	45.26	55.09	0.150
56	6.10	15.93	25.76	35.59	45.42	55.25	0.153
57	6.26	16.10	25.92	35.75	45.58	55.41	0.156
58	6.43	16.26	26.09	35.92	45.75	55.58	0.158
59	6.59	16.42	26.25	36.08	45.91	55.74	0.161

1889.		α CASSIOPEIÆ.					
Z.		S. T.			Az. E.		
10° 56' N.		0 ^h 33 ^m			0° 21'		
		<i>l.</i>	<i>n.</i>	<i>l'.</i>	<i>a.</i>	<i>n'</i>	<i>a'.</i>
January 0.....		+·033	42·74	—·058	+·32	30	—·64
" 20.....		·020	42·35	·038	·19	21	·40
February 9.....		·013	42·07	·013	·13	12	·16
March 1.....		·000	46·76	·007	·00	6	·08
" 21.....		·000	41·69	·000	·00	3	·00
April 10.....		·000	41·84	·000	·00	3	·00
" 30.....		·000	42·23	·007	·00	8	·08
May 20.....		·007	42·80	·020	·06	14	·24
June 9.....		·020	43·57	·033	·19	22	·40
" 29.....		·040	44·28	·047	·38	30	·56
July 19.....		·047	45·19	·067	·45	39	·80
August 8.....		·060	45·66	·080	·57	46	·96
" 28.....		·080	46·21	·080	·70	51	·96
September 17.....		·073	46·41	·100	·70	55	1·20
October 7.....		·073	46·58	·100	·70	55	1·20
" 27.....		·073	46·81	·093	·70	53	1·12
November 16.....		·060	46·42	·087	·57	48	1·04
December 6.....		·053	46·15	·073	·51	41	·88
" 26.....		+·040	45·89	—·053	+·38	32	—·64

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	—·021	27·87	251	+·870					
29	·021	26·53	242	·877					
30	·020	25·13	232	·883					
31	·019	23·73	221	·890	45	—·011	0·00	0	+·483
32	·019	22·33	210	·897	46	·010	2·13	23	·494
33	·018	20·87	199	·403	47	·009	4·23	47	·504
34	·017	19·40	186	·410	48	·008	6·60	72	·516
35	·017	17·87	173	·417	49	·007	8·98	98	·527
36	·016	16·27	159	·423	50	·006	11·40	126	·537
37	·016	14·67	145	·430	51	·005	14·00	155	·548
38	·015	13·00	130	·437	52	·004	16·67	188	·559
39	·014	11·33	114	·443	53	·003	19·47	221	·570
40	·013	9·60	97	·450	54	·002	22·44	257	·581
41	·013	7·80	80	·457	55	·001	25·73	294	·592
42	·012	5·93	61	·463	56	—·000	28·73	334	+·602
43	·011	4·00	42	·470					
44	—·011	2·00	21	+·477					

Polaris Z. Dist. = 48° 45'.

1889.		γ CASSIOPEÆ.					
Z.		S. T.			Az. E.		
15° 7' N.		0 ^h 49 ^m			0° 18'.		
		<i>l.</i>	<i>s.</i>	<i>l'.</i>	<i>a</i>	<i>s</i>	<i>a'</i>
January 0.....		+ 040	30 96	— 060	+ 48	57	— 64
" 20.....		027	30 60	040	82	47	49
February 9.....		013	30 22	027	16	39	28
March 1.....		000	29 53	013	00	32	14
" 21.....		000	29 20	000	00	29	00
April 10.....		000	30 07	000	00	26	00
" 30.....		000	30 37	012	00	32	14
May 20.....		007	30 90	020	08	38	21
June 9.....		020	31 58	038	24	45	35
" 29.....		033	32 27	053	40	52	56
July 19.....		047	33 03	073	56	62	78
August 8.....		058	33 61	093	64	71	99
" 28.....		067	34 20	100	80	76	1 06
September 17.....		073	34 50	107	88	81	1 18
October 7.....		067	34 42	113	80	82	1 20
" 27.....		067	34 68	113	80	80	1 20
November 16.....		050	34 58	107	72	76	1 18
December 6.....		053	34 41	087	64	70	92
" 26.....		+ 047	34 15	— 067	+ 56	61	— 71

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	029	17 87	161	+ 378					
29	028	17 00	155	385					
30	027	16 13	148	392					
31	027	15 27	141	398	45	017	0 00	0	+ 492
32	026	14 33	134	406	46	016	1 33	15	503
33	025	13 40	127	412	47	015	2 73	30	515
34	025	12 40	119	418	48	014	4 20	46	527
35	024	11 47	110	425	49	013	5 67	63	538
36	023	10 47	102	432	50	012	7 27	81	550
37	024	9 40	93	438	51	011	8 33	99	562
38	022	8 33	83	445	52	010	10 67	120	573
39	021	7 27	73	452	53	009	12 40	142	585
40	021	6 13	63	458	54	008	14 33	164	597
41	020	5 00	51	465	55	007	16 37	188	608
42	019	3 30	39	472	56	006	+ 18 33	+ 214	+ 620
43	019	2 60	27	478					
44	018	1 33	12	+ 485					

Polaris Z. Dist. = 43° 44'.

1889.		URSÆ MAJORIS, S. P.					
Z.		S. T.			Az. E.		
78° 26' N.		0 ^h 50 ^m .			0° 12'.		
		<i>l.</i>	<i>a.</i>	<i>l'.</i>	<i>a.</i>	<i>a.</i>	<i>a'.</i>
January 0.....		+ 083	42.49	—060	+ 86	82	—65
" 20.....		047	42.24	080	51	73	87
February 9.....		080	42.15	093	65	64	1.01
March 1.....		067	42.10	113	72	57	1.23
" 21.....		073	42.06	120	79	54	1.30
April 10.....		073	42.19	120	79	53	1.30
" 30.....		073	42.45	113	79	59	1.23
May 20.....		060	42.79	100	65	63	1.08
June 9.....		047	43.32	087	51	69	94
" 29.....		040	43.86	067	43	79	72
July 19.....		027	44.32	047	29	88	51
August 8.....		013	44.76	033	14	96	36
" 28.....		007	45.11	020	07	102	22
September 17.....		000	45.35	000	00	106	00
October 7.....		000	45.48	007	00	107	07
" 27.....		000	45.61	013	00	106	14
November 16.....		007	45.62	020	07	102	22
December 6.....		013	45.68	040	14	82	43
" 26.....		+ 027	45.51	—053	+ 29	87	—50

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28									
29		Invisible							
30									
31		<i>a.</i>	<i>a.</i>		45	+ 054	+ 0.00	+ 0	+ 458
32	+ 045	+ 14.60	— 137	+ 372	46	—055	1.40	15	468
33	046	13.67	129	378	47	056	2.57	31	478
34	047	12.67	121	385	48	057	4.32	47	488
35	047	11.67	113	392	49	058	5.57	65	498
36	048	10.67	104	398	50	059	7.47	83	508
37	049	9.60	95	405	51	060	9.13	102	518
38	049	8.53	85	412	52	061	10.23	123	528
39	050	7.40	74	418	53	061	12.73	145	538
40	051	6.27	63	425	54	062	14.67	166	548
41	051	5.07	52	432	55	063	16.67	193	558
42	052	3.87	40	438	56	+ 064	+ 18.60	+ 219	+ 568
43	053	2.60	27	445					
44	+ 053	+ 1.32	— 14	+ 452					

Polaris Z. Dist. = 43° 44'.

1889.	URSÆ MAJORIS, S. P.					
Z.	S. T.			Az. W.		
79° 30' N.	1 ^h 19 ^m .			0° 0'.		
	<i>t.</i>	<i>α.</i>	<i>t.</i>	<i>α.</i>	<i>α.</i>	<i>α.</i>
January 0.....	040	22.42	+067	+35	29	78
" 20.....	038	22.33	047	29	39	54
February 9.....	020	22.12	027	17	48	81
March 1.....	007	22.07	013	06	55	16
" 21.....	000	21.97	007	00	60	08
April 10.....	000	22.12	000	00	61	00
" 30.....	000	22.29	007	00	59	08
May 20.....	018	22.55	007	12	54	08
June 9.....	020	23.12	033	17	47	39
" 29.....	033	23.62	053	29	38	62
July 19.....	047	24.15	067	41	29	78
August 8.....	060	24.62	087	52	20	101
" 28.....	078	24.96	100	64	13	117
September 17.....	078	25.24	113	64	8	132
October 7.....	060	25.45	120	70	5	140
" 27.....	080	25.60	120	70	5	140
November 16.....	078	25.69	113	64	8	132
December 6.....	067	25.72	100	58	14	117
" 26.....	060	25.94	+087	+52	22	101

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28									
29		Invis	ible						
30									
31					45	+053	0.00	0	458
32					46	054	0.12	2	469
33					47	055	0.27	3	480
34	+045	0.94	9	394	48	056	0.33	4	491
35	0.6	0.87	8	400	49	057	0.47	5	502
36	047	0.74	7	406	50	058	0.60	7	512
37	047	0.67	7	412	51	059	0.72	8	523
38	048	0.60	6	418	52	060	0.87	10	534
39	049	0.52	5	423	53	061	1.00	11	545
40	059	0.47	4	429	54	062	1.13	12	556
41	050	0.38	4	435	55	063	1.26	13	567
42	051	0.37	3	441	56	+064	1.40	17	577
43	051	0.13	2	447					
44	+052	0.07	1	458					

Polaris Z. Dist. = 43° 43'.

1889.	<i>α</i> ERIDANI (<i>Achernar</i>).					
Z.	S. T.			Az. W.		
102° 48' S.	1 ^h 32 ^m			0° 0'.		
	<i>t.</i>	<i>s.</i>	<i>t.</i>	<i>"</i>	<i>"</i>	<i>a'</i>
January 0.....	047	43 00	....	+ 41	57	....
" 20.....	038	41 37	....	.29	66	....
February 9.....	020	39 67	....	.17	74	....
March 1.....	013	38 34	....	.12	81	....
" 21.....	007	37 45	....	.06	88	....
April 10.....	000	37 05	....	.06	88	....
" 30.....	007	37 47	....	.06	86	....
May 20.....	013	38 42	....	.12	82	....
June 9.....	013	39 00	....	.12	75	....
" 29.....	027	41 76	....	.28	67	....
July 19.....	040	43 73	....	.35	59	....
August 8.....	053	45 88	....	.47	51	....
" 28.....	067	47 40	....	.58	44	....
September 17.....	073	48 72	....	.64	38	....
October 7.....	080	40 45	....	.70	35	....
" 27.....	073	49 63	....	.64	34	....
November 16.....	073	49 28	....	.64	37	....
December 6.....	067	48 23	....	.58	41	....
" 26.....	058	46 89	....	+ 47	48	....

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+ 045	+	9 93	89	-291				
29	045		9 47	86	-301				
30	046		8 93	82	-311				
31	047		8 47	79	-321				
32	+ 047	+	7 93	75	-331				
33					45				
34					46				
35					47				
36					48				
37					49				
38					50				
39					51				
40					52				
41					53				
42					54				
43					55				
44					56				

Polaris Z. Dist. = 43° 48'.

1889.		β ARIETIS.					
		S. T.			Az. W.		
24° 44'		1h 48 ^m			0° 18'		
		<i>t.</i>	<i>a.</i>	<i>t'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		·053	4·36	+·067	+·49	82	·82
" 20.....		·040	3·83	·047	·37	91	·58
February 9.....		·020	3·28	·033	·18	100	·41
March 1.....		·007	2·74	·020	·06	108	·25
" 21.....		·000	2·37	·007	·00	113	·08
April 10.....		·000	2·35	·000	·00	113	·00
" 30.....		·007	2·53	·000	·06	114	·00
May 20.....		·013	3·01	·007	·12	110	·08
June 9.....		·013	3·66	·027	·12	103	·33
" 29.....		·027	4·47	·040	·25	95	·49
July 19.....		·047	5·53	·053	·43	86	·66
August 8.....		·053	6·34	·073	·49	77	·91
" 28.....		·067	7·15	·093	·62	70	1·15
September 17.....		·073	7·77	·107	·68	63	1·32
October 7.....		·080	8·24	·113	·74	59	1·40
" 27.....		·087	8·48	·113	·80	57	1·40
November 16.....		·087	8·48	·113	·80	59	1·40
December 6.....		·080	8·22	·100	·74	63	1·24
" 26.....		·067	7·86	+·187	+·62	70	1·07

· LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·002	^{s.} 19·73	["] 178	·362					
29	·003	18·80	171	·368					
30	·004	17·80	164	·375					
31	·004	16·87	157	·382	45	+·014	^{s.} 0·00	["] 0	·475
32	·005	15·80	148	·388	46	·015	1·53	17	·486
33	·006	14·80	140	·395	47	·016	3·07	34	·497
34	·006	13·73	131	·402	48	·017	4·67	52	·507
35	·007	12·67	123	·408	49	·018	6·33	70	·518
36	·008	11·53	113	·415	50	·019	8·13	90	·529
37	·008	10·40	102	·422	51	·020	9·93	111	·540
38	·009	9·20	91	·428	52	·021	11·88	131	·551
39	·000	8·00	80	·435	53	·021	13·80	156	·562
40	·001	6·80	68	·442	54	·022	15·93	182	·572
41	·001	5·53	56	·448	55	·023	18·07	209	·583
42	·012	4·20	43	·455	56	+·024	20·33	237	·594
43	·018	2·87	29	·462					
44	+·018	1·47	15	·468					

Polaris Z. Dist. = 43° 44'.

1889.		a ARIETIS.					
Z.		S. T.			Az. W.		
22° 4' S.		2h 0 ^m			0° 19'.		
		<i>l.</i>	<i>a.</i>	<i>l'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		·047	21·46	+·078	+·47	74	·79
" 20.....		·038	20·99	·058	·88	83	·58
February 9.....		·027	20·43	·038	·27	92	·86
March 1.....		·008	19·94	·018	·18	100	·14
" 21.....		·017	19·67	·000	·07	106	·00
April 10.....		·000	19·49	·000	·00	109	·00
" 30.....		·000	19·64	·000	·00	111	·00
May 20.....		·007	20·04	·007	·07	105	·07
June 9.....		·003	20·64	·020	·18	98	·22
" 29.....		·017	21·55	·040	·27	90	·43
July 19.....		·020	22·41	·060	·40	81	·65
August 8.....		·043	23·39	·073	·53	72	·79
" 28.....		·057	24·16	·087	·67	64	·94
September 17.....		·060	24·82	·100	·80	57	1·08
October 7.....		·080	25·29	·113	·80	52	1·23
" 27.....		·080	25·51	·120	·80	50	1·30
November 16.....		·080	25·59	·120	·80	51	1·30
December 6.....		·080	25·49	·107	·80	55	1·16
" 26.....		·067	25·14	+·093	+·67	66	—1·01

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>"</i>	<i>"</i>						
28	+·002	+ 27·53	— 249	·868					
29	·003	26·20	240	·873					
30	·004	24·87	229	·879					
31	·004	23·47	218	·885	45	+·013	— 0·00	+ 0	·467
32	·005	22·07	207	·891	46	·014	2·13	22	·478
33	·005	20·60	196	·897	47	·015	4·27	46	·490
34	·006	19·13	184	·408	48	·016	6·53	71	·502
35	·007	17·60	171	·408	49	·017	8·87	96	·513
36	·007	16·07	157	·414	50	·017	11·33	126	·525
37	·008	14·47	143	·420	51	·018	13·87	154	·537
38	·008	12·87	128	·426	52	·019	16·47	186	·548
39	·009	11·20	112	·432	53	·020	19·27	219	·560
40	·010	9·47	96	·438	54	·021	22·20	254	·572
41	·010	7·67	78	·443	55	·022	25·20	291	·583
42	·011	5·87	60	·449	56	+·023	28·40	+ 332	·595
43	·012	3·93	41	·455					
44	+·012	+ 2·00	— 21	·461					

Polaris Z. Dist. = 43° 44'.

1889.		β URSÆ MINORIS, S. P.					
Z.		S. T.			Az. W.		
60° 23' N.		2h 42 ^m			0° 39'.		
		<i>l.</i>	<i>n.</i>	<i>l'.</i>	<i>a.</i>	<i>n'</i>	<i>a'.</i>
January 0	.....	·060	18·22	+·080	+·53	43	—·88
" 20	.....	·047	18·14	·067	·45	52	·74
February 9	.....	·033	17·87	·053	·32	61	·59
March 1	.....	·020	17·59	·027	·19	70	·29
" 21	.....	·013	17·40	·013	·13	77	·15
April 10	.....	·000	17·26	·013	·00	82	·15
" 30	.....	·000	17·43	·000	·00	83	·00
May 20	.....	·007	17·83	·007	·06	80	·07
June 9	.....	·013	18·06	·020	·18	75	·22
" 29	.....	·027	18·68	·033	·26	67	·37
July 19	.....	·033	19·23	·053	·32	58	·59
August 8	.....	·047	19·83	·073	·45	48	·81
" 28	.....	·067	20·47	·087	·64	39	·96
September 17	.....	·080	20·92	·107	·77	31	1·18
October 7	.....	·087	21·77	·127	·84	32	1·40
" 27	.....	·093	21·54	·127	·90	30	1·40
November 16	.....	·093	21·75	·127	·90	19	1·40
December 6	.....	·087	21·84	·127	·84	21	1·40
" 26	.....	·087	21·90	+·113	+·84	27	—1·25

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·080	+ 53·47	— 493	—·318					
29	·080	50·87	464	·323					
30	·081	48·27	445	·329					
31	·082	45·60	424	·335	45	+·089	0·00	+ 0	—·417
32	·082	42·87	403	·341	46	·090	4·07	43	·426
33	·083	40·07	380	·347	47	·091	8·27	39	·435
34	·083	37·20	357	·353	48	·092	12·67	137	·444
35	·084	34·30	333	·358	49	·093	17·20	188	·453
36	·084	31·20	306	·364	50	·094	21·93	240	·462
37	·085	28·13	278	·370	51	·095	26·87	298	·472
38	·086	25·00	249	·376	52	·096	32·00	359	·481
39	·086	21·73	218	·382	53	·096	37·33	423	·490
40	·087	18·04	187	·388	54	·097	43·00	491	·499
41	·087	14·23	153	·393	55	·098	48·93	564	·508
42	·088	11·40	118	·399	56	+·099	55·13	+ 641	—·517
43	·088	7·73	81	·405					
44	+·089	+ 3·93	— 42	—·411					

Polaris Z. Dis^a. = 43° 48'.

1889.	γ URSÆ MINORIS, S. P.					
Z.	S. T.			Az. W.		
62° 46' N.	3h 10m.			0° 51'.		
	<i>t.</i>	<i>n.</i>	<i>t'.</i>	<i>a.</i>	<i>n'</i>	<i>a'.</i>
January 0.....	·060	43·40	+·087	+·58	70	·99
" 20.....	·047	43·42	·073	·45	78	·84
February 9.....	·033	43·04	·053	·32	87	·61
March 1.....	·020	42·86	·040	·19	96	·46
" 21.....	·007	42·65	·020	·06	104	·23
April 10.....	·000	42·49	·013	·00	109	·15
" 30.....	·000	42·59	·000	·00	111	·00
May 20.....	·000	43·01	·013	·00	110	·15
June 9.....	·007	43·15	·013	·06	105	·15
" 29.....	·020	43·75	·033	·19	98	·38
July 19.....	·027	44·35	·047	·26	89	·53
August 8.....	·040	44·98	·067	·39	79	·76
" 28.....	·060	45·46	·087	·53	70	·99
September 17.....	·067	45·90	·113	·64	60	1·30
October 7.....	·080	46·35	·120	·77	52	1·37
" 27.....	·087	46·76	·133	·84	48	1·52
November 16.....	·093	46·97	·140	·90	46	1·60
December 6.....	·087	47·09	·140	·84	47	1·60
" 26.....	·080	47·19	+·133	+·77	51	1·52

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·067	+ 70·00	— 631	—298					
29	·067	66·60	607	·298					
30	·068	63·41	579	·804					
31	·068	59·67	555	·310	45	+·076	— 0·00	+ 0	—392
32	·069	56·07	527	·316	46	·077	5·33	57	·402
33	·069	52·40	497	·322	47	·078	10·67	118	·412
34	·070	48·66	466	·328	48	·079	16·60	180	·422
35	·071	44·80	434	·333	49	·079	22·53	247	·432
36	·071	40·87	399	·339	50	·080	28·73	318	·442
37	·072	36·80	363	·345	51	·081	35·13	392	·452
38	·072	32·67	325	·351	52	·082	41·87	471	·462
39	·073	28·40	285	·357	53	·083	48·93	555	·472
40	·073	24·00	244	·363	54	·084	56·33	644	·482
41	·074	19·53	200	·368	55	·084	64·06	739	·492
42	·074	14·87	154	·374	56	+·085	— 72·13	+ 839	—502
43	·074	10·07	105	·380					
44	+·076	+ 5·07	— 54	—386					

Polaris Z. Dist = 45° 52'.

1889.		α PERSEI.					
Z.		S. T.			Az. W.		
4° 28' N.		8 ^h 16 ^m .			0° 54'.		
		<i>l.</i>	<i>n.</i>	<i>l'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		·053	50·44	+·030	+·51	45	·95
" 20.....		·047	50·15	·060	·45	52	·71
February 9.....		·083	49·73	·047	·82	61	·55
March 1.....		·027	42·26	·020	·16	70	·23
" 21.....		·013	48·86	·007	·13	78	·08
April 10.....		·000	48·57	·000	·00	83	·00
" 30.....		·000	48·59	·000	·00	86	·00
May 20.....		·007	48·77	·000	·06	84	·00
June 9.....		·007	49·25	·007	·06	80	·08
" 29.....		·013	49·82	·020	·13	73	·24
July 19.....		·027	50·64	·040	·26	65	·47
August 8.....		·040	51·43	·060	·89	55	·71
" 28.....		·060	52·15	·070	·58	45	·87
September 17.....		·073	52·85	·093	·71	36	1·10
October 7.....		·080	53·45	·107	·77	28	1·26
" 27.....		·087	53·95	·120	·84	23	1·42
November 16.....		·093	54·27	·127	·90	20	1·50
December 6.....		·087	54·20	·127	·84	21	1·50
" 26.....		·083	54·38	+·113	+·84	23	1·34

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	·013	+	73·40	·663	·326				
29	·012		69·87	638	·322				
30	·012		66·27	611	·338				
31	·011		62·60	583	·343	45	·004	·000	+·425
32	·011		58·80	553	·349	46	·008	5·47	59 ·484
33	·010		55·00	522	·355	47	·008	11·29	122 ·443
34	·010		51·06	490	·361	48	·002	17·13	188 ·453
35	·009		47·00	455	·367	49	·001	23·40	258 ·462
36	·008		42·87	419	·373	50	·001	29·87	332 ·471
37	·008		38·67	382	·378	51	+·000	36·67	411 ·481
38	·007		34·33	342	·384	52	·001	43·73	494 ·489
39	·007		29·87	300	·390	53	·001	51·07	582 ·498
40	·006		25·27	256	·396	54	·002	58·80	675 ·508
41	·006		20·53	210	·403	55	·008	66·92	774 ·517
42	·005		15·67	162	·408	56	+·008	75·47	+ 879 ·526
43	·005		10·60	111	·413				
44	·004	+	5·40	57	·419				

Polaris Z. Dist. = 48° 53'.

1889.		δ PERSEI.					
Z.		S. T.			Az. W.		
2° 26' N.		3h 35m			1° 1'		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		·060	17·20	+·080	+·64	75	·90
" 20.....		·053	16·97	·067	·57	82	·75
February 9.....		·040	16·52	·053	·43	90	·60
March 1.....		·027	16·06	·027	·29	99	·30
" 21.....		·013	15·66	·013	·14	108	·15
April 10.....		·007	15·35	·000	·07	113	·00
" 30.....		·000	15·19	·000	·00	117	·00
May 20.....		·000	15·44	·000	·00	116	·00
June 9.....		·007	15·81	·007	·07	112	·08
" 29.....		·020	16·45	·021	·21	106	·23
July 19.....		·027	17·22	·039	·29	98	·38
August 8.....		·047	18·00	·050	·50	88	·60
" 28.....		·060	18·82	·074	·64	78	·83
September 17.....		·073	19·53	·099	·79	68	1·05
October 7.....		·080	20·13	·116	·86	60	1·28
" 27.....		·093	20·68	·120	1·09	54	1·35
November 16.....		·098	21·04	·130	1·00	50	1·50
December 6.....		·098	21·23	·130	1·00	50	1·50
" 26.....		·098	21·19	+·120	+1·00	53	—1·43

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	·011	83·40	753	·234					
29	·010	79·40	724	·240					
30	·010	75·26	693	·246					
31	·009	71·07	661	·252	45	·002	0·00	0	·383
32	·009	66·80	628	·258	46	·001	6·40	67	·348
33	·008	62·47	593	·263	47	·000	12·87	139	·352
34	·008	58·00	556	·269	48	+·000	19·67	214	·361
35	·007	53·40	517	·275	49	·000	26·73	293	·370
36	·007	48·73	476	·281	50	·001	34·13	378	·379
37	·006	43·93	433	·287	51	·002	41·80	466	·388
38	·006	38·93	388	·293	52	·002	49·80	561	·398
39	·005	33·87	341	·298	53	·003	58·20	660	·407
40	·004	28·67	291	·304	54	·004	67·00	766	·416
41	·004	23·33	239	·310	55	·005	76·20	879	·425
42	·003	17·73	184	·316	56	+·006	85·89	999	·434
43	·003	12·07	136	·322					
44	·002	6·13	65	·328					

Polaris Z. Dist. = 43° 57'.

1889.		γ ERIDANI.					
Z.		S. T.			Az. W.		
58° 49' S.		3 ^h 48 ^m			1° 7'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a</i>	<i>"</i>	<i>a'</i>
January 0	.....	067	53.23	+080	+71	30	—86
" 20	.....	053	52.70	+073	57	37	79
February 9	.....	040	51.75	060	43	45	64
March 19	.....	027	51.00	040	29	54	43
" 21	.....	013	50.12	020	14	62	21
April 10	.....	007	49.54	007	07	68	07
" 30	.....	000	49.24	000	00	72	00
May 20	.....	007	49.38	000	07	72	00
June 9	.....	018	49.77	000	14	69	00
" 29	.....	020	50.58	020	21	62	21
July 19	.....	033	51.58	033	36	56	36
August 8	.....	040	52.69	040	43	44	64
" 29	.....	053	53.81	073	57	35	79
September 17	.....	067	54.97	083	71	25	100
October 7	.....	080	56.00	113	86	17	121
" 27	.....	098	56.79	120	100	10	129
November 16	.....	098	57.28	133	100	6	143
December 6	.....	098	57.41	140	100	5	150
" 26	.....	098	57.35	+133	+100	8	—143

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>						
28	+013	90.33	815	—276					
29	013	86.00	784	—282					
30	014	81.53	751	—288					
31	014	77.00	716	—293	45	+022	0.00	0	—375
32	015	72.40	680	—299	46	023	6.30	73	—388
33	016	67.67	642	—305	47	024	13.93	151	—392
34	016	62.80	602	—311	48	024	21.33	232	—400
35	017	57.87	560	—317	49	025	29.00	318	—408
36	017	52.80	515	—323	50	026	37.00	410	—417
37	018	47.60	469	—328	51	027	45.27	506	—425
38	018	42.20	420	—334	52	027	54.00	608	—433
39	019	36.72	369	—340	53	028	63.07	716	—442
40	019	31.07	315	—346	54	029	72.60	831	—450
41	020	25.27	258	—353	55	029	82.60	952	—458
42	021	19.26	198	—358	56	+030	93.07	1082	—467
43	021	13.07	135	—363					
44	+022	6.67	70	—369					

Polaris Z. Dist. = 43° 59'.

1889.		7 DRACONIS, S. P.				
Z.		S. T.			Az. W.	
73° 14' N.		4h 12m			1° 15'.	
		t.	"	t.	a.	"
January 0.	0.	·060	11.94	+·093	+·64	56
" 20.	20.	·053	12.12	·080	·57	61
February 9.	9.	·040	11.82	·067	·43	70
March 1.	1.	·027	11.66	·047	·29	79
" 21.	21.	·020	11.53	·020	·21	88
April 10.	10.	·007	11.36	·007	·07	95
" 30.	30.	·000	11.36	·000	·00	99
May 20.	20.	·000	11.67	·000	·00	100
June 9.	9.	·007	11.81	·000	·07	98
" 29.	29.	·007	12.28	·020	·07	92
July 19.	19.	·020	12.80	·033	·21	84
August 8.	8.	·033	13.32	·053	·36	75
" 28.	28.	·053	13.79	·073	·50	65
September 17.	17.	·060	14.29	·093	·64	54
October 7.	7.	·073	14.74	·113	·79	43
" 27.	27.	·087	15.11	·127	·93	37
November 16.	16.	·093	15.48	·140	1·00	32
December 6.	6.	·093	15.83	·147	1·00	30
" 26.	26.	·093	16.00	+·140	+1·00	32

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·036	+ 101.53	— 916	·262					
29	·036	96.60	881	·267					
30	·037	91.60	844	·271					
31	·037	86.53	806	·275	45	+·044	0.00	0	·388
32	·038	81.33	765	·279	46	·045	7.73	82	·341
33	·038	76.00	723	·283	47	·046	15.73	169	·348
34	·039	70.53	677	·287	48	·046	24.00	261	·356
35	·039	65.00	629	·292	49	·047	32.60	358	·363
36	·040	59.27	580	·296	50	·048	41.60	460	·371
37	·040	53.40	528	·300	51	·048	50.93	569	·378
38	·041	47.40	472	·304	52	·049	60.73	683	·386
39	·041	41.20	415	·308	53	·050	70.93	806	·393
40	·042	34.87	354	·312	54	·050	81.60	934	·401
41	·042	28.33	290	·317	55	·051	92.87	1071	·408
42	·043	21.60	223	·321	56	+·052	104.67	1217	·416
43	·043	14.60	153	·325					
44	+·044	+ 7.40	— 78	·329					

Polaris Z, Dist. = 44° 4'.

1889.	<i>a</i> TAURI (<i>Aldebaran</i>).					
	S. T.			Az. W.		
	4 ^h 20 ^m			1° 20'.		
Z.	<i>t.</i>	<i>s.</i>	<i>t.</i>	<i>a</i>	<i>s</i>	<i>a'</i>
28° 43' S.						
January 0.....	·060	51·41	+·087	+·54	49	—1·04
" 20.....	·053	51·18	·080	·48	54	·06
February 9.....	·040	50·59	·060	·86	61	·72
March 1.....	·033	49·99	·040	·80	70	·48
" 21.....	·020	49·37	·020	·18	79	·24
April 10.....	·013	48·82	·007	·12	86	·08
" 30.....	·000	48·48	·000	·00	91	·00
May 20.....	·000	48·52	·000	·00	92	·00
June 9.....	·000	48·75	·000	·00	91	·00
" 29.....	·007	49·35	·007	·06	86	·08
July 19.....	·020	50·14	·027	·18	78	·32
August 8.....	·033	51·06	·040	·30	69	·48
" 28.....	·047	52·01	·060	·42	59	·72
September 17.....	·060	52·94	·087	·54	49	1·04
October 7.....	·073	53·82	·107	·66	39	1·28
" 27.....	·087	54·58	·120	·78	31	1·44
November 16.....	·093	55·17	·107	·84	25	1·52
December 6.....	·093	55·44	·140	·84	22	1·60
" 26.....	·100	55·58	+·183	+·90	24	—1·60

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	+·003	+108·00	974	—·246					
29	·004	102·80	936	·250					
30	·004	97·47	897	·254					
31	·004	92·07	858	·258	45	+·011	0·00	0	—·317
32	·005	86·53	818	·262	46	·011	8·20	88	·324
33	·005	80·87	767	·267	47	·012	16·67	180	·332
34	·006	75·07	719	·271	48	·012	25·53	278	·339
35	·006	69·13	669	·275	49	·013	34·65	381	·347
36	·007	63·07	616	·279	50	·014	44·18	490	·354
37	·007	56·80	560	·283	51	·014	54·18	605	·362
38	·007	50·47	502	·287	52	·015	64·51	727	·369
39	·008	43·87	441	·292	53	·015	75·38	856	·377
40	·008	37·13	376	·296	54	·016	86·78	994	·384
41	·009	30·13	308	·300	55	·016	98·71	1139	·392
42	·009	23·00	237	·304	56	+·017	—111·31	+1295	—·399
43	·010	15·53	169	·308					
44	+·010	+7·98	83	—·313					

Polaris Z. Dist. = 44° 8'.

1889.		β ORIONIS (<i>Rigel</i>).					
Z.		S. T.			Az. W.		
53° 20' S.		5h 4m			1° 31'.		
		<i>t.</i>	<i>n.</i>	<i>t'.</i>	<i>a.</i>	<i>n.</i>	<i>a'.</i>
January 0	.....	·067	15·28	+·083	+·64	39	—1·11
" 20	.....	·060	15·08	·086	·57	43	1·11
February 9	.....	·047	14·38	·074	·43	50	·94
March 1	.....	·033	13·60	·051	·39	58	·69
" 21	.....	·027	12·75	·035	·21	67	·43
April 10	.....	·020	12·10	·019	·17	75	·17
" 30	.....	·007	11·48	·006	·00	81	·09
May 20	.....	·000	11·36	·000	·00	84	·00
June 9	.....	·007	11·39	·006	·07	83	·00
" 29	.....	·013	11·80	·003	·17	79	·09
July 19	.....	·020	12·49	·029	·11	73	·26
August 8	.....	·027	13·13	·045	·26	64	·51
" 28	.....	·053	14·50	·084	·40	55	·77
September 17	.....	·060	15·67	·086	·54	44	1·03
October 7	.....	·073	16·78	·109	·69	34	1·29
" 27	.....	·086	17·77	·121	·78	25	1·54
November 16	.....	·100	18·70	·134	·90	18	1·71
December 6	.....	·100	19·20	·144	·90	14	1·80
" 26	.....	·107	19·50	+·140	+1·00	13	—1·80

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>n.</i>	<i>n'</i>						
28	+·007	+ 122·40	1105	·187					
29	·008	116·47	1063	·192					
30	·008	110·44	1019	·196					
31	·008	104·34	971	·200	45	+·014	0·00	+ 0	·258
32	·009	98·07	922	·204	46	·014	9·27	99	·264
33	·009	91·67	870	·208	47	·015	18·87	204	·270
34	·010	85·07	816	·212	48	·015	28·87	314	·276
35	·010	78·70	759	·217	49	·016	39·27	431	·282
36	·010	71·47	699	·221	50	·016	50·07	555	·287
37	·011	64·40	636	·225	51	·017	61·40	685	·293
38	·011	57·20	570	·229	52	·017	73·13	823	·299
39	·012	49·73	500	·233	53	·018	85·47	970	·305
40	·012	42·07	427	·237	54	·018	98·33	1125	·311
41	·012	34·20	350	·242	55	·019	111·87	1291	·317
42	·013	26·07	269	·246	56	+·019	126·07	+ 1467	·322
43	·015	17·67	184	·250					
44	+·014	+ 9·00	95	·254					

Polaris Z. Dist. = 44° 18'.

1889.	α AURIGÆ (<i>Capella</i>).					
Z.	S. T.			Az. W.		
0° 53' N.	5 ^h 8 ^m			1° 32'		
	<i>t.</i>	<i>a.</i>	<i>t.</i>	<i>a.</i>	<i>a.</i>	<i>a.</i>
January 0.....	·067	38.13	+·087	+·56	45	—1.05
" 20.....	·060	38.10	·087	·51	49	1.05
February 9.....	·047	37.66	·073	·89	56	·89
March 1.....	·040	37.27	·053	·84	64	·65
" 21.....	·027	36.75	·033	·23	73	·41
April 10.....	·020	36.36	·013	·17	81	·16
" 30.....	·007	36.02	·007	·06	88	·08
May 20.....	·000	35.96	·000	·00	90	·00
June 9.....	·000	36.16	·007	·00	91	·08
" 29.....	·007	36.59	·007	·06	86	·08
July 19.....	·013	37.19	·020	·11	80	·24
August 8.....	·027	37.86	·040	·23	71	·49
" 28.....	·040	38.66	·060	·34	61	·73
September 17.....	·060	39.46	·080	·51	51	·97
October 7.....	·073	40.28	·100	·62	40	1.22
" 27.....	·087	41.01	·113	·73	31	1.38
November 16.....	·093	41.63	·133	·79	24	1.62
December 6.....	·100	42.08	·140	·84	26	1.70
" 26.....	—·107	42.34	+·140	+·90	19	—1.70

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	—·006	+123.87	—1117	—·199					
29	·006	117.87	1074	·202					
30	·006	111.80	1029	·204					
31	·005	105.33	982	·207	45	+·000	— 0.00	+ 0	—·242
32	·005	99.20	932	·209	46	·000	9.40	101	·248
33	·005	92.72	880	·212	47	·001	19.13	207	·255
34	·004	86.04	825	·214	48	·002	29.27	319	·262
35	·004	79.27	767	·217	49	·002	29.80	437	·268
36	·004	72.22	706	·219	50	·003	50.73	562	·275
37	·003	65.20	642	·222	51	·003	62.13	694	·282
38	·003	57.87	575	·224	52	·004	74.07	834	·288
39	·003	50.22	505	·227	53	·004	86.53	983	·295
40	·002	42.52	431	·229	54	·005	99.53	1140	·302
41	·002	34.60	353	·232	55	·006	113.27	1307	·308
42	·002	26.33	271	·234	56	+·006	—127.67	+1455	—·315
43	·001	17.97	185	·237					
44	—·001	+ 9.97	95	—·239					

Polaris Z. Dist. = 44° 19'.

1880.		β DRACONIS, S. P.					
Z.		S. T.			Az. W.		
82° 37' N.		5 ^h 17 ^m			1° 34'		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>s.</i>	<i>a.</i>
January 0.....		—060	35·92	+·098	+·48	56	—1·15
" 20.....		—060	36·20	·087	+·48	59	1·06
February 9.....		—047	36·00	·078	·87	65	·90
March 1.....		—088	35·93	·060	·27	74	·74
" 21.....		—027	35·88	·088	·21	82	·41
April 10.....		—018	35·65	·020	·11	91	·25
" 30.....		—000	35·23	·018	·00	98	·16
May 20.....		—000	35·77	·007	·00	101	·08
June 9.....		—000	35·89	·000	·00	101	·00
" 29.....		—000	36·24	·018	·00	98	·16
July 19.....		—018	36·69	·020	·11	92	·25
August 8.....		—027	37·19	·040	·21	83	·49
" 28.....		—040	39·59	·058	·32	73	·65
September 17.....		—053	38·03	·080	·48	62	·98
October 7.....		—067	38·54	·100	·53	52	1·28
" 27.....		—080	38·95	·127	·64	42	1·55
November 16.....		—090	39·41	·138	·80	35	1·64
December 6.....		—100	39·79	·147	·80	30	1·80
" 26.....		—100	40·12	+·147	+·80	30	—1·80

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28									
29									
30									
31		Invisible			45	+·024	0·00	+·0	—225
32					46	—025	9·60	103	·281
33					47	—025	19·60	211	·287
34					48	—026	29·93	326	·242
35					49	—026	40·73	447	·248
36					50	—027	51·93	575	·254
37	+·022	+·022	66·73	—205	51	—027	63·60	710	·260
38	—022	39·20	590	·208	52	—028	75·80	853	·266
39	—023	51·47	517	·210	53	—028	88·53	1005	·272
40	—023	43·53	441	·213	54	—029	101·87	1166	·277
41	—028	35·40	361	·215	55	—029	115·93	1387	·283
42	—024	26·97	278	·218	56	+·030	130·67	+·1519	—289
43	—024	18·27	190	·220					
44	+·024	+·027	98	—223					

Polaris Z. Dist. = 44° 21'.

1889.		♄ ORIONIS.					
Z.		S. T.			Az. W.		
45° 23' S.		5 ^b 21 ^m .			1° 35'.		
		<i>l.</i>	<i>n.</i>	<i>l.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		·000	47·39	+·093	+·03	53	—1·07
" 20.....		·000	47·36	·087	·06	56	·99
February 9.....		·058	46·77	·078	·59	63	·84
March 1.....		·038	46·06	·053	·87	71	·61
" 21.....		·027	45·80	·033	·29	80	·33
April 10.....		·013	44·58	·020	·15	88	·28
" 30.....		·000	44·02	·007	·00	94	·08
May 20.....		·000	43·87	·000	·00	98	·00
June 9.....		·000	43·92	·000	·00	98	·00
" 29.....		·000	44·46	·007	·00	95	·08
July 19.....		·007	45·00	·020	·07	89	·23
August 8.....		·020	45·89	·040	·22	80	·46
" 28.....		·038	46·90	·053	·87	71	·61
September 17.....		·058	48·02	·073	·59	60	·84
October 7.....		·067	49·04	·100	·73	50	1·14
" 27.....		·080	50·03	·113	·88	40	1·30
November 16.....		·093	50·82	·133	1·03	32	1·52
December 6.....		·093	51·36	·140	1·03	29	1·60
" 26.....		—100	51·70	+·140	+1·10	26	—1·60

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>n.</i>	<i>"</i>						
28	+·005	+ 127·93	1115	—183					
29	·005	121·73	1112	·185					
30	·006	115·40	1065	·188					
31	·006	109·00	1015	·190	45	+·010	0·00	+ 0	—225
32	·006	102·52	964	·193	46	·011	9·73	103	·280
33	·007	95·80	910	·195	47	·012	19·80	213	·235
34	·007	88·93	852	·198	48	·012	30·27	329	·240
35	·007	81·93	794	·200	49	·013	41·13	451	·245
36	·008	74·73	730	·203	50	·013	52·40	580	·250
37	·008	67·33	665	·205	51	·014	64·20	716	·255
38	·008	59·80	596	·208	52	·014	76·52	861	·260
39	·009	52·00	523	·210	53	·015	89·40	1014	·265
40	·009	44·00	447	·213	54	·015	102·87	1177	·270
41	·009	35·73	366	·215	55	·016	117·07	1350	·275
42	·010	27·20	282	·218	56	+·016	131·94	1534	—280
43	·010	18·47	193	·220					
44	+·010	+ 9·40	99	—223					

Polaris Z. Dist = 34° 28'.

1889.		ORIONIS.					
Z.		S. T.			Az. W.		
46° 16' S.		5h 25m			1° 36'.		
		<i>t.</i>	<i>a.</i>	<i>t'.</i>	<i>a</i>	<i>a'</i>	
January 0.....		·087	55·30	+·098	+·87	48	-1·08
" 20.....		·058	55·03	·087	·58	51	1·00
February 9.....		·047	54·57	·078	·47	57	·86
March 1.....		·040	53·93	·053	·40	65	·62
" 21.....		·027	53·10	·040	·27	74	·46
April 10.....		·018	52·38	·027	·18	82	·81
" 30.....		·007	51·87	·007	·07	89	·08
May 20.....		·000	51·67	·007	·00	92	·08
June 9.....		·000	51·69	·000	·00	93	·00
" 29.....		·007	52·09	·018	·07	90	·15
July 19.....		·018	52·81	·020	·18	84	·28
August 8.....		·027	53·63	·027	·27	76	·81
" 28.....		·040	54·71	·053	·40	66	·62
September 17.....		·053	55·57	·080	·53	55	·98
October 7.....		·067	56·85	·100	·67	45	1·16
" 27.....		·087	57·84	·118	·87	35	1·31
November 16.....		·098	58·64	·138	·98	27	1·55
December 6.....		·100	59·25	·140	1·00	23	1·62
" 26.....		·100	59·54	+·147	+1·00	21	-1·70

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·005	129·20	-1166	-·160					
29	·005	123·00	1121	·163					
30	·006	116·60	1074	·167					
31	·006	110·14	1025	·170	45	+·010	0·00	0	-·217
32	·006	103·51	973	·173	46	·011	9·80	105	·222
33	·007	96·74	919	·177	47	·011	90·00	215	·227
34	·007	89·80	861	·180	48	·012	30·53	332	·232
35	·007	82·47	801	·183	49	·012	41·33	455	·237
36	·007	75·47	738	·187	50	·013	52·93	586	·242
37	·008	68·00	671	·190	51	·013	64·87	723	·247
38	·008	60·33	601	·193	52	·014	77·27	869	·252
39	·008	52·47	528	·197	53	·014	90·27	1024	·257
40	·009	44·40	451	·200	54	·015	103·87	1188	·262
41	·009	36·06	370	·203	55	·015	118·20	1363	·267
42	·009	27·47	284	·207	56	+·016	133·20	1549	·272
43	·009	18·60	194	·210					
44	+·010	9·47	100	-·213					

Polaris Z. Dist. = 44° 24'.

1889.		α COLUMBÆ.					
Z.		S. T.			Az. W.		
79° 8' S.		5h 27m			1° 36'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>"</i>	<i>"</i>	<i>a'</i>
January 0.....		·000	57·19	+·093	+·64	74	-1·03
" 20.....		·680	56·95	·087	·64	77	·96
February 9.....		·047	56·06	·073	·50	83	·81
March 1.....		·038	55·10	·060	·36	91	·67
" 21.....		·027	53·82	·040	·29	100	·44
April 10.....		·013	52·69	·027	·14	108	·30
" 30.....		·000	51·80	·013	·00	115	·15
May 20.....		·000	51·17	·007	·00	118	·07
June 9.....		·000	51·39	·000	·00	119	·00
" 29.....		·009	51·77	·007	·00	115	·07
July 19.....		·013	52·59	·020	·14	110	·22
August 8.....		·027	53·74	·033	·29	102	·37
" 28.....		·033	55·06	·060	·86	92	·67
September 17.....		·058	56·55	·080	·57	82	·89
October 7.....		·060	57·99	·100	·64	71	1·11
" 27.....		·080	59·37	·120	·86	62	1·33
November 16.....		·087	60·41	·140	·93	54	1·55
December 6.....		·098	61·16	·147	1·00	49	1·68
" 26.....		·098	61·45	+·153	+1·00	47	-1·70

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	+·013	+129·80	-1171	-163					
29	·013	123·53	1127	·163					
30	·013	117·13	1079	·167					
31	·014	110·60	1030	·170	45	+·017	0·00	0	-217
32	·014	103·93	978	·173	46	·017	9·87	105	·222
33	·014	97·13	923	·177	47	·018	20·07	216	·227
34	·014	90·20	865	·180	48	·018	30·67	333	·232
35	·014	83·07	805	·183	49	·018	41·73	457	·237
36	·015	75·80	741	·187	50	·019	53·20	588	·243
37	·015	68·27	674	·190	51	·019	65·13	726	·247
38	·015	60·60	604	·193	52	·020	77·60	873	·252
39	·015	52·67	530	·197	53	·020	90·67	1028	·257
40	·016	44·60	453	·200	54	·021	104·34	1193	·262
41	·016	36·20	371	·203	55	·021	118·74	1369	·267
42	·016	27·60	286	·207	56	+·022	133·20	+1555	·272
43	·016	18·67	195	·210					
44	+·016	+ 9·47	-100	-213					

Polaris Z. Dist. = 44° 24'.

1889, 1890, 1891		γ DRACONIS, S. P.					
Z.		S. T.			Az. W.		
77° 38' N.		5h 43m			1° 30'.		
		<i>t.</i>	<i>n.</i>	<i>t'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		-073	18-81	+087	+069	77	-1-06
" 20.....		-067	19-06	-087	-63	79	1-06
February 9.....		-053	18-93	-073	-50	85	-90
March 1.....		-047	18-94	-053	-44	93	-65
" 21.....		-033	18-68	-040	-31	101	-49
April 10.....		-020	18-59	-020	-19	111	-25
" 30.....		-018	18-87	-007	-13	118	-08
May 20.....		-007	18-74	-007	-06	122	-08
June 9.....		-000	18-73	-000	-00	123	-00
" 29.....		-007	19-09	-007	-06	120	-08
July 19.....		-013	19-48	-013	-13	115	-16
August 8.....		-020	19-91	-033	-19	107	-41
" 28.....		-040	20-36	-053	-38	98	-65
September 17.....		-053	20-90	-067	-50	87	-82
October 7.....		-060	21-35	-093	-56	76	-1-15
" 27.....		-080	21-79	-113	-75	66	-1-39
November 16.....		-093	22-20	-133	-88	58	-1-64
December 6.....		-100	22-65	-133	-94	52	-1-64
" 26.....		-107	22-97	+147	+1-00	50	-1-80

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28									
29									
30									
31		Invisible			45	+020	0-00	0	-183
32					46	-020	10-13	108	-188
33					47	-020	20-67	223	-192
34					48	-021	31-60	344	-196
35					49	-021	43-00	472	-200
36					50	-021	54-80	607	-204
37					51	-022	67-13	749	-208
38	+018	+62-53	623	-186	52	-022	80-00	901	-213
39	-018	54-40	547	-168	53	-022	93-47	1061	-217
40	-018	46-00	467	-171	54	-023	107-60	1231	-221
41	-019	37-40	382	-173	55	-023	122-40	1412	-225
42	-019	28-47	294	-176	56	+023	137-08	1604	-229
43	-019	19-33	201	-178					
44	+019	9-80	103	-181					

Polaris Z. Dist. = 44° 28'.

1889.

 α ORIONIS.

Z.	S. T.			Az. W.		
37° 37' S.	5h 44m			1° 40'		
	<i>t.</i>	<i>s.</i>	<i>t.</i>	<i>a.</i>	<i>"</i>	<i>a.</i>
January 0.....	·067	62·33	+·087	+·63	36	·99
" 20.....	·067	62·35	·080	·63	38	·91
February 9.....	·060	61·92	·067	·56	44	·76
March 1.....	·040	61·31	·060	·38	51	·69
" 21.....	·038	60·55	·040	·31	60	·46
April 10.....	·020	59·88	·020	·19	69	·28
" 30.....	·018	59·37	·007	·13	76	·08
May 20.....	·007	59·14	·000	·05	80	·00
June 9.....	·000	59·09	·000	·00	81	·00
" 29.....	·007	59·45	·000	·05	79	·00
July 19.....	·018	60·09	·007	·13	73	·08
August 8.....	·027	60·84	·027	·25	66	·30
" 28.....	·040	61·78	·047	·38	56	·58
September 17.....	·053	62·76	·067	·50	46	·76
October 7.....	·067	63·80	·087	·63	35	·99
" 27.....	·080	64·77	·107	·75	25	1·22
November 16.....	·098	65·67	·127	·88	17	1·45
December 6.....	·100	66·27	·138	·94	11	1·52
" 26.....	·107	66·66	+·140	+1·00	8	1·60

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	+·002	+ 134·33	1211	·127					
29	·002	127·87	1165	·130					
30	·003	121·27	1116	·133					
31	·008	114·53	1065	·137	45	+·008	0·00	0	·188
32	·008	107·67	1011	·140	46	·008	10·13	109	·187
33	·004	100·60	954	·143	47	·008	20·73	924	·190
34	·004	93·40	894	·147	48	·009	31·67	845	·193
35	·004	86·07	832	·150	49	·009	43·06	473	·197
36	·005	78·53	766	·153	50	·009	54·93	609	·200
37	·005	70·73	694	·157	51	·010	67·33	752	·203
38	·005	62·80	624	·160	52	·010	80·27	904	·207
39	·006	54·67	549	·163	53	·010	93·73	1064	·210
40	·006	46·20	468	·167	54	·011	107·98	1235	·213
41	·006	37·53	383	·170	55	·011	122·73	1416	·217
42	·007	28·60	295	·173	56	+·011	138·33	1609	·220
43	·007	19·40	202	·177					
44	+·007	+ 9·87	103	·180					

Polaris Z. Dist. = 44° 30'.

1889.	β AURIGÆ.					
	S. T.			Az. W.		
	5h 51 ^m			1° 41'.		
Z.						
0° 4' S.						
	<i>l.</i>	<i>n.</i>	<i>l'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....	·087	23·05	+·087	+·63	42	—·99
" 20.....	·087	23·08	·087	+·63	43	·99
February 9.....	·053	22·86	·073	·50	49	·84
March 1.....	·053	22·39	·047	·50	57	·61
" 21.....	·027	22·02	·040	·25	66	·38
April 10.....	·020	21·54	·027	·19	74	·23
" 30.....	·007	21·12	·007	·06	82	·08
May 20.....	·007	20·97	·000	·06	86	·00
June 9.....	·000	21·05	·000	·00	88	·00
" 29.....	·007	21·38	·000	·06	85	·00
July 19.....	·020	21·82	·007	·18	80	·15
August 8.....	·027	22·54	·027	·25	73	·81
" 28.....	·040	23·23	·040	·37	63	·53
September 17.....	·053	24·09	·067	·50	53	·76
October 7.....	·073	24·91	·087	·69	42	·99
" 27.....	·087	25·69	·113	·81	32	1·30
November 16.....	·093	26·39	·120	·87	23	1·37
December 6.....	·100	26·94	·133	·94	17	1·52
" 26.....	·107	27·29	+·140	+1·00	15	—1·60

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>n.</i>	<i>"</i>						
28	+·005	+ 135·74	1225	·118					
29	·004	129·20	1178	·122					
30	·004	122·54	1129	·125					
31	·004	115·74	1077	·128	45	+·000	0·00	0	—·175
32	·004	108·74	1022	·132	46	·001	10·27	110	·178
33	·003	101·67	965	·135	47	·001	20·93	926	·182
34	·003	94·40	905	·138	48	·001	32·07	348	·185
35	·003	86·93	842	·142	49	·001	43·53	478	·188
36	·002	79·27	775	·145	50	·002	55·53	615	·192
37	·002	71·47	706	·148	51	·002	68·07	760	·195
38	·002	63·40	632	·152	52	·002	81·13	913	·198
39	·002	55·13	555	·155	53	·003	94·80	1075	·202
40	·001	46·67	474	·158	54	·003	109·07	1240	·205
41	·001	37·93	389	·162	55	·003	124·07	1431	·208
42	·001	28·93	299	·165	56	+·003	139·86	1626	—·212
43	·001	19·60	204	·168					
44	+·000	+ 10·00	105	—·172					

Polaris Z. Dist. = 44° 32'.

1889.		<i>a</i> ARGUS (<i>Canopus</i>).					
Z.		S. T.			Az. W.		
97° 38' S.		6 ^h 9 ^m .			1° 44'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		·060	68·41	....	+ ·60	30	....
" 20.....		·053	68·28	....	·53	31	....
February 9.....		·047	67·23	....	·47	35	....
March 1.....		·040	65·90	....	·40	42	....
" 21.....		·027	64·27	....	·27	51	....
April 10.....		·018	32·61	....	·13	59	....
" 30.....		·000	61·06	....	·00	67	....
May 20.....		·000	60·32	....	·00	72	....
June 9.....		·000	59·75	....	·00	74	....
" 29.....		·000	59·94	....	·00	72	....
July 19.....		·007	60·65	....	·07	68	....
August 8.....		·013	61·90	....	·13	61	....
" 28.....		·027	63·53	....	·27	52	....
September 17.....		·040	65·35	....	·40	42	....
October 7.....		·053	67·36	....	·53	31	....
" 27.....		·067	69·29	....	·67	21	....
November 16.....		·080	70·91	....	·80	12	....
December 6.....		·093	72·08	....	·93	7	....
" 26.....		·100	72·73	....	+ 1·00	2	....

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>						
28	+ ·011	+ 139·47	1257	·091					
29	·011	132·73	1209	·093					
30	·011	125·87	1158	·096					
31	·011	118·87	1105	·098	45				
32	·011	111·73	1049	·101	46				
33	·012	104·40	990	·103	47				
34	·012	96·98	929	·106	48				
35	·012	89·27	864	·108	49				
36	·012	81·47	796	·111	50				
37	·013	73·33	723	·113	51				
38	+ ·013	+ 65·07	647	·116	52				
39					53				
40					54				
41					55				
42					56				
43									
44									

Polaris Z. Dist. = 44° 37'.

1889.	<i>a</i> LYRÆ (<i>Vega</i>), S. P.					
Z.	S. T.			Az. W.		
96° 19' N.	6 ^b 24 ^m			1° 45'.		
	<i>l.</i>	<i>s.</i>	<i>l'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		7·96	+·093		67	—1·02
" 20.....		8·38	·093		78	1·02
February 9.....		8·36	·080		72	·87
March 1.....		8·35	·067		79	·73
" 21.....		8·27	·047		87	·51
April 10.....		8·21	·033		95	·86
" 30.....		8·17	·013		104	·15
May 20.....		8·31	·007		109	·07
June 9.....		8·38	·000		112	·00
" 29.....		8·66	·000		111	·00
July 19.....		9·02	·007		107	·07
August 8.....		9·45	·020		100	·23
" 28.....		9·76	·040		92	·44
September 17.....		10·16	·060		81	·65
October 7.....		10·57	·080		70	·87
" 27.....		10·96	·107		60	1·16
November 16.....		11·46	·120		51	1·31
December 6.....		11·86	·133		44	1·45
" 26.....		12·28	+·147		39	—1·60

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28		<i>s.</i>	<i>"</i>		45				
29					46				
30					47		Invisible		
31					48				
32					49				
33					50		<i>s.</i>	<i>"</i>	
34					51	+·010	71·00	793	—116
35		Invisible			52	·010	84·60	953	·118
36					53	·011	98·82	1122	·120
37					54	·011	113·80	1302	·123
38					55	·011	129·47	1493	·125
39					56	+·011	145·73	1697	—128
40									
41									
42									
43									
44									

Polaris Z. Dist. = 45° 19'.

1889.	<i>α</i> CANIS MAJORIS (<i>Sirius</i>).					
Z.	S. T.			Az. W.		
61° 34' S.	6 ^h 33 ^m			1° 46'		
	<i>t.</i>	<i>α.</i>	<i>t'.</i>	<i>α.</i>	<i>α.</i>	<i>α.</i>
January 0.....	·067	43·46	+·087	+·60	60	—1·00
" 20.....	·067	43·58	·098	·60	60	1·08
February 9.....	·060	43·13	·080	·54	64	·98
March 1.....	·047	42·38	·073	·42	70	·85
" 21.....	·033	41·41	·053	·30	79	·62
April 10.....	·027	40·62	·040	·24	87	·46
" 30.....	·020	39·82	·013	·18	95	·15
May 20.....	·018	39·36	·007	·12	101	·08
June 9.....	·007	39·04	·000	·06	104	·00
" 29.....	·000	39·14	·000	·00	103	·00
July 19.....	·007	39·60	·013	·06	100	·15
August 8.....	·020	40·45	·020	·18	93	·23
" 28.....	·027	41·46	·040	·24	84	·46
September 17.....	·040	42·60	·060	·36	75	·70
October 7.....	·060	43·85	·080	·54	64	·93
" 27.....	·073	45·04	·107	·66	54	1·24
November 16.....	·087	46·18	·120	·78	44	1·39
December 6.....	·093	47·09	·140	·84	37	1·62
" 26.....	—100	47·60	+·147	+·90	32	—1·70

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·003	<i>α.</i> + 142·73	<i>α.</i> — 1257	—069					
29	·003	135·80	1238	·070					
30	·003	128·80	1186	·071					
31	·003	121·67	1131	·072	45	+·006	<i>α.</i> 0·00	<i>α.</i> 0	—083
32	·003	114·33	1074	·073	46	·006	10·80	116	·086
33	·004	106·87	1014	·073	47	·006	22·07	238	·088
34	·004	99·20	951	·074	48	·006	33·73	367	·091
35	·004	91·40	884	·075	49	·006	45·80	503	·093
36	·004	83·34	815	·076	50	·007	58·47	647	·096
37	·004	75·14	741	·077	51	·007	71·60	799	·098
38	·004	66·68	664	·078	52	·007	85·33	961	·101
39	·005	58·00	582	·078	53	·007	99·67	1131	·103
40	·005	49·08	497	·079	54	·008	114·73	1313	·106
41	·005	39·87	407	·080	55	·008	130·53	1506	·108
42	·005	30·33	313	·081	56	+·008	—147·07	+1711	—111
43	·005	20·60	214	·082					
44	+·005	+10·47	—110	—083					

Polaris Z. Dist. = 44° 45'.

1880.		CANIS MAJORIS.					
Z.		S. T.			Az. W.		
73° 49' S.		6h 46m			1° 47'.		
		<i>t.</i>	<i>n.</i>	<i>t'.</i>	<i>a.</i>	<i>n'</i>	<i>a'.</i>
January 0.....		·087	23·63	+·087	+·67	52	—1·05
" 20.....		·067	23·77	·098	·67	52	1·13
February 9.....		·060	23·30	·089	·60	55	·97
March 1.....		·058	22·59	·067	·53	61	·81
" 21.....		·038	21·45	·053	·33	69	·65
April 10.....		·027	20·40	·033	·27	78	·41
" 30.....		·020	19·49	·013	·20	86	·16
May 20.....		·007	18·81	·013	·07	92	·16
June 9.....		·000	18·34	·000	·00	95	·00
" 29.....		·000	18·44	·000	·00	95	·00
July 19.....		·007	18·85	·007	·07	92	·08
August 8.....		·013	19·60	·020	·13	86	·24
" 28.....		·027	20·73	·033	·27	78	·41
September 17.....		·040	22·02	·053	·40	69	·65
October 7.....		·060	23·43	·073	·60	58	·89
" 27.....		·067	24·78	·093	·67	47	1·13
November 16.....		·080	26·10	·120	·80	37	1·46
December 6.....		·100	27·12	·127	1·00	30	1·54
" 26.....		—100	27·79	+·140	+1·00	24	—1·70

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·002	+ 143·87	— 1297	—·086					
29	·002	136·93	1247	·087					
30	·002	129·86	1193	·088					
31	·002	122·60	1140	·088	45	+·004	— 0·00	+ 0	—·050
32	·003	115·26	1082	·039	46	·004	10·93	117	·053
33	·003	107·73	1021	·030	47	·004	22·26	240	·055
34	·003	100·00	958	·041	48	·004	34·00	370	·058
35	·008	92·13	891	·042	49	·004	46·20	508	·060
36	·008	84·00	821	·043	50	·004	58·98	653	·063
37	·008	75·73	746	·043	51	·005	72·13	806	·065
38	·008	67·20	669	·044	52	·005	86·00	969	·068
39	·008	58·47	586	·045	53	·005	100·47	1141	·070
40	·008	49·46	499	·046	54	·005	115·60	1324	·073
41	·008	40·20	409	·047	55	·005	131·53	1518	·075
42	·004	30·60	316	·048	56	+·005	— 148·27	+ 1795	—·078
43	·004	20·73	216	·048					
44	+·004	+ 10·53	— 110	—·049					

Polaris Z. Dist. = 44° 49'.

1889.		♂ DRACONIS, S. P.					
Z.		S. T.			Az. W.		
67° 32' N.		6h 55m			1° 47'		
		<i>t.</i>	<i>s.</i>	<i>t.</i>	<i>a.</i>	<i>"</i>	<i>a.</i>
January 0		067	8.56	+087	+67	76	95
" 20		067	4.03	093	67	75	1.02
February 9		060	3.87	087	60	79	95
March 1		053	3.85	073	57	84	80
" 21		040	3.61	060	40	93	65
April 10		027	3.48	040	27	101	43
" 30		013	3.18	020	13	110	21
May 20		013	3.43	013	17	116	15
June 9		000	3.21	000	03	120	00
" 29		000	3.50	000	07	120	00
July 19		007	3.78	007	07	117	07
August 8		013	4.23	020	10	112	22
" 28		020	4.66	033	23	104	36
September 17		040	5.16	053	40	94	58
October 7		053	5.72	074	53	83	80
" 27		067	6.25	100	60	72	1.00
November 16		087	6.84	113	80	62	1.24
December 6		093	7.35	133	93	54	1.45
" 26		100	7.81	+147	+100	49	1.60

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>s.</i>	<i>"</i>						
28	+005	+144.40	1303	027					
29	005	137.40	1254	028					
30	005	130.33	1201	029					
31	005	123.07	1146	030	45	+006	0.00	0	042
32	005	115.67	1087	031	46	006	10.98	117	045
33	005	108.13	1026	032	47	006	22.33	241	048
34	005	100.33	962	033	48	006	34.13	371	051
35	006	92.47	895	033	49	007	46.40	509	054
36	006	84.33	824	034	50	007	59.13	654	057
37	006	76.00	750	035	51	007	72.47	808	060
38	006	67.47	672	036	52	007	86.33	972	063
39	006	58.67	590	037	53	007	100.87	1144	066
40	006	49.60	504	038	54	007	116.07	1328	069
41	006	40.33	419	038	55	007	132.07	1523	072
42	006	30.73	317	039	56	+007	148.87	1830	075
43	006	20.80	217	040					
44	+006	+10.60	111	041					

Polaris. Z. Dist. = 44° 52'

1889.	<i>α</i> CANIS MINORIS (<i>Procyon</i>).					
Z.	S. T.			Az. W.		
89° 29' S.	7h 28m			1° 47'.		
	<i>t.</i>	<i>a.</i>	<i>t'.</i>	<i>a</i>	<i>a'</i>	
January 0.....	·058	52·85	+·087	+·55	82	— 93
" 20.....	·060	53·19	·093	·62	79	1·00
February 9.....	·058	53·08	·087	·55	81	·93
March 1.....	·053	52·79	·073	·55	83	·79
" 21.....	·033	52·10	·067	·85	94	·71
April 10.....	·027	51·42	·047	·28	102	·50
" 30.....	·019	50·71	·027	·14	111	·29
May 20.....	·007	50·29	·020	·17	118	·21
June 9.....	·000	49·93	·000	·00	123	·00
" 29.....	·000	49·90	·000	·00	124	·00
July 19.....	·000	50·16	·000	·00	123	·00
August 8.....	·007	50·66	·018	·07	118	·14
" 28.....	·013	51·40	·027	·14	111	·29
September 17.....	·027	52·22	·047	·28	102	·50
October 7.....	·047	53·25	·060	·48	92	·64
" 27.....	·053	54·25	·087	·55	81	·93
November 16.....	·073	55·39	·107	·76	71	1·14
December 6.....	·087	56·28	·127	·90	62	1·86
" 26.....	·087	56·99	+·140	+·90	55	—1·50

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>a.</i>	<i>a'</i>						
28	·001	+ 144·47	1304	+·019					
29	·001	137·53	1253	·020					
30	·001	130·40	1201	·021					
31	·001	123·13	1146	·022	45	·001	0·00	0	+·033
32	·001	115·73	1088	·023	46	·001	11·00	116	·034
33	·001	108·30	1027	·023	47	·001	92·33	241	·035
34	·001	100·40	963	·024	48	·001	34·13	372	·036
35	·001	92·47	895	·025	49	·001	46·40	509	·037
36	·001	84·40	825	·026	50	·001	59·20	654	·037
37	·001	76·07	749	·027	51	·001	72·53	809	·038
38	·001	67·40	671	·028	52	·001	86·40	973	·039
39	·001	58·67	589	·028	53	·002	100·93	1145	·040
40	·001	49·67	502	·029	54	·002	116·20	1329	·041
41	·001	40·33	411	·030	55	·002	132·18	1524	·042
42	·001	30·73	317	·031	56	·002	148·93	1732	+·042
43	·001	20·80	217	·032					
44	·001	+ 10·60	111	+·033					

Polaris Z. Dist. = 45° 4'.

1889.	ε DRACONIS, S. P.					
Z.	S. T.			Az. W.		
65° 1' N.	7 ^h 29 ^m			1° 47'.		
	<i>l.</i>	<i>a.</i>	<i>l'.</i>	<i>a.</i>	<i>a'</i>	<i>a'</i>
January 0.....	→060	20·94	+·087	+·58	81	—1·05
" 20.....	060	21·45	·093	·58	79	1·13
February 9.....	060	21·32	·087	·58	80	1·05
March 1.....	058	21·86	·073	·51	85	·89
" 21.....	040	21·13	·067	·89	94	·81
April 10.....	027	20·95	·047	·26	101	·57
" 30.....	020	20·67	·027	·19	110	·82
May 20.....	007	20·92	·020	·06	117	·24
June 9.....	000	20·64	·000	·00	121	·00
" 29.....	009	20·86	·009	·00	121	·00
July 19.....	000	21·11	·000	·00	122	·00
August 8.....	007	21·46	·013	·06	117	·16
" 28.....	020	21·94	·027	·19	110	·82
September 17.....	027	22·36	·047	·26	101	·57
October 7.....	040	22·90	·067	·89	91	·81
" 27.....	060	23·28	·087	·58	80	1·05
November 16.....	073	24·00	·113	·71	70	1·38
December 6.....	080	24·54	·127	·77	61	1·54
" 26.....	→098	25·09	+·140	+·90	55	—1·70

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	—·005	+ 144·47	— 1303	+·086					
29	·005	137·46	1254	·087					
30	·005	130·40	1201	·038					
31	·005	123·13	1146	·038	45	—·006	— 0·00	+ 0	+·050
32	·005	115·73	1088	·039	46	·006	11·00	117	·051
33	·005	108·13	1027	·040	47	·006	22·33	241	·052
34	·005	100·40	963	·041	48	·006	34·13	372	·052
35	·005	92·47	895	·042	49	·006	46·40	509	·053
36	·005	84·33	824	·043	50	·006	59·30	655	·054
37	·005	76·00	750	·044	51	·006	72·53	809	·055
38	·006	67·47	672	·045	52	·006	86·40	979	·057
39	·006	58·67	590	·046	53	·006	100·93	1145	·057
40	·006	49·60	504	·047	54	·006	116·30	1329	·057
41	·006	40·23	412	·048	55	·006	132·13	1524	·058
42	·006	30·73	317	·048	56	—·006	— 148·93	+ 1732	+·059
43	·006	20·80	217	·049					
44	—·006	+ 10·53	— 111	+·049					

Polaris Z. Dist. = 45° 8'.

1889.		α CYGNI, S. P.					
Z.		S. T.			Az. W.		
90° 7' N.		8 ^h 27 ^m .			1° 42'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>a'</i>	
January 0.....			55-48	+·078		56	—·87
" 20.....			56-02	·087		52	1·08
February 9.....			56-16	·087		51	1·08
March 1.....			56-25	·080		54	·95
" 21.....			56-22	·067		60	·79
April 10.....			56-07	·058		67	·63
" 30.....			56-00	·033		77	·39
May 20.....			56-12	·027		84	·82
June 9.....			56-02	·007		91	·08
" 29.....			56-16	·000		94	·00
July 19.....			56-33	·000		95	·00
August 8.....			56-65	·000		93	·00
" 28.....			56-92	·018		89	·16
September 17.....			57-25	·027		81	·82
October 7.....			57-73	·040		72	·47
" 27.....			58-26	·067		62	·79
November 16.....			58-53	·087		51	1·08
December 6.....			59-04	·107		42	1·26
" 26.....			59-54	+·127		33	—1·50

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28									
29									
30									
31					45	—·014	0-00	0	+·150
32					46	·014	10-40	112	·151
33					47	·014	21-20	229	·152
34					48	·014	32-40	353	·152
35		Invisible			49	·014	44-07	484	·153
36					50	·014	56-20	622	·154
37					51	·014	69-10	769	·155
38					52	·014	82-30	924	·156
39					53	·015	96-16	1088	·157
40					54	·015	110-57	1263	·157
41					55	·015	125-77	1448	·158
42					56	—·015	—141-70	+1645	+·160
43									
44									

Polaris Z. Dist. = 45° 22'.

1889.		η CEPHEI, S. P.					
Z.		S. T.			Az. W.		
73° 36' N.		8h 29m			1° 42'		
		<i>h.</i>	<i>m.</i>	<i>l.</i>	<i>a.</i>	<i>"</i>	<i>a.</i>
January 9		053	15 44	+ 080	+ 55	44	088
" 20		060	15 55	093	62	40	1 03
February 9		060	16 00	093	62	39	1 03
March 1		058	16 07	087	55	42	096
" 21		047	15 53	073	48	48	081
April 10		040	15 59	069	42	55	066
" 30		020	15 62	040	21	64	044
May 20		018	15 80	027	14	72	029
June 9		000	15 53	013	00	78	015
" 29		000	15 65	000	00	82	000
July 19		000	15 88	000	00	83	000
August 8		000	16 07	007	00	81	007
" 28		007	16 47	013	07	77	015
September 17		020	16 57	027	21	69	029
October 7		020	17 27	053	21	60	059
" 27		040	17 74	073	42	50	081
November 16		060	18 33	093	62	39	096
December 6		078	18 89	107	76	30	1 18
" 26		099	19 94	+ 127	+ 90	21	1 40

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	020	+ 137 00	1236	+ 130					
29	020	130 73	1188	135					
30	020	123 60	1138	130					
31	020	116 73	1086	135	45	021	0 00	0	+ 158
32	020	109 73	1031	130	46	021	10 40	111	161
33	020	102 53	973	135	47	022	21 20	229	164
34	021	95 20	919	140	48	022	32 33	359	167
35	021	87 67	849	145	49	022	44 00	483	170
36	021	80 00	781	140	50	023	56 07	621	173
37	021	72 08	710	145	51	023	68 73	767	176
38	021	64 00	637	140	52	023	81 87	922	179
39	021	55 67	559	145	53	023	95 67	1086	182
40	021	47 07	477	150	54	024	110 13	1260	185
41	021	38 27	391	155	55	024	125 27	1445	188
42	021	29 18	301	150	56	024	141 13	+ 1649	+ 191
43	021	19 73	206	155					
44	021	+ 10 07	105	+ 150					

Polaris Z. Dist. $\approx 45^{\circ} 23'$.

1889.		URSÆ MAJORIS.					
Z.		S. T.			Az. W.		
8° 29' N.		8h 52m			1° 38'.		
		<i>t.</i>	<i>n.</i>	<i>p.</i>	<i>a.</i>	<i>n.</i>	<i>a'.</i>
January 0		·047	12·70	+·080	+·49	44	·88
" 20		·060	12·23	·093	·63	39	·03
February 9		·060	13·48	·093	·63	37	1·03
March 1		·060	13·49	·093	·63	39	1·03
" 21		·047	13·27	·080	·49	44	1·88
April 10		·047	12·84	·067	·49	51	·74
" 30		·083	12·43	·047	·35	60	·52
May 20		·020	12·06	·033	·21	60	·87
June 9		·067	11·75	·020	·07	75	·22
" 20		·000	11·67	·007	·00	80	·07
July 19		·000	11·70	·000	·00	82	·00
August 8		·000	11·87	·007	·00	81	·07
" 28		·067	12·27	·013	·07	77	·14
September 17		·013	12·77	·027	·14	71	·29
October 7		·027	13·42	·040	·28	62	·44
" 27		·047	14·25	·060	·49	53	·66
November 16		·053	15·02	·087	·56	42	·96
December 6		·067	15·85	·107	·70	32	1·18
" 26		·080	16·58	+·127	+·84	23	1·40

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·006	+ 131·60	1188	+·149					
29	·005	125·27	1142	·152					
30	·005	118·80	1092	·154					
31	·005	112·20	1044	·157	45	+·001	0·00	0	+·192
32	·005	105·40	991	·159	46	·001	10·00	105	·196
33	·004	98·53	936	·162	47	·000	20·33	219	·200
34	·004	91·46	877	·164	48	+·000	31·13	338	·204
35	·004	84·27	816	·167	49	·000	42·47	464	·208
36	·004	76·87	751	·169	50	·001	53·93	597	·213
37	·003	69·27	683	·172	51	·001	66·07	737	·217
38	·003	61·47	619	·174	52	·001	78·73	886	·221
39	·003	53·47	538	·177	53	·002	92·00	1043	·225
40	·002	45·20	459	·179	54	·002	105·87	1211	·229
41	·002	36·73	376	·182	55	·003	120·40	1389	·233
42	·002	28·00	289	·184	56	·003	135·67	1578	+·238
43	·002	18·93	198	·187					
44	+·001	+ 9·60	101	+·189					

Polaris Z. Dist. = 45° 13'.

1899.		a CEPHEI, S.P.					
Z.		S. T.			Az. W.		
72° 53' N.		9h 2 ^m .			1° 36'		
		<i>t.</i>	<i>a.</i>	<i>t.</i>	<i>a.</i>	<i>a.</i>	
January 0.....		·053	43·82	+·073	+·58	35	·79
" 20.....		·067	44·45	·087	·67	29	·94
February 9.....		·067	44·53	·093	·67	27	1·01
March 1.....		·067	44·66	·087	·67	28	·94
" 21.....		·060	44·59	·080	·60	33	·87
April 10.....		·047	44·45	·067	·47	40	·72
" 30.....		·033	44·34	·053	·33	49	·51
May 20.....		·027	44·36	·033	·27	57	·36
June 9.....		·018	44·18	·013	·13	64	·14
" 29.....		·007	44·27	·000	·07	69	·00
July 19.....		·007	44·37	·000	·07	71	·00
August 8.....		·000	44·56	·000	·00	71	·00
" 28.....		·013	44·89	·007	·13	67	·07
September 17.....		·020	45·19	·020	·20	62	·22
October 7.....		·033	45·66	·033	·33	52	·36
" 27.....		·040	46·05	·060	·40	44	·65
November 16.....		·060	46·65	·073	·60	33	·79
December 6.....		·073	47·23	·100	·73	23	1·08
" 26.....		·080	47·75	+·120	+·80	14	—1·30

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
•		<i>a.</i>	<i>a</i>						
28	·025	+ 128·80	1169	+·174					
29	·025	122·54	1117	·177					
30	·025	116·20	1070	·179					
31	·026	109·74	1021	·182	45	·029	0·00	0	+·217
32	·026	103·14	969	·184	46	·030	9·73	104	·222
33	·026	96·40	915	·187	47	·030	19·87	215	·227
34	·026	89·53	858	·189	48	·031	30·40	331	·232
35	·027	82·47	798	·192	49	·031	41·33	454	·237
36	·027	75·20	735	·194	50	·032	52·67	583	·242
37	·027	67·80	668	·197	51	·032	64·53	721	·247
38	·027	60·13	599	·199	52	·033	76·93	866	·252
39	·028	52·33	525	·202	53	·033	89·86	1020	·257
40	·028	44·27	449	·204	54	·034	103·47	1184	·262
41	·028	36·00	367	·207	55	·034	117·67	1358	·267
42	·029	27·40	283	·209	56	·035	132·67	1543	+·273
43	·029	18·60	194	·212					
44	·029	+ 9·47	99	+·214					

Polaris Z. Dist. = 45° 37'.

1889.		a HYDRÆ.					
Z.		S. T.			Az. W.		
53° 11' S.		9 ^h 17 ^m			1° 33'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>a'</i>	
January 0.....		·053	6·26	+ ·073	+ ·47	19	·78
" 20.....		·067	7·06	·093	·58	12	·99
February 9.....		·067	7·34	·093	·58	10	·99
March 1.....		·060	7·30	·093	·52	11	·99
" 21.....		·060	6·89	·087	·52	15	·92
April 10.....		·047	6·24	·073	·41	22	·78
" 30.....		·033	5·55	·053	·29	31	·56
May 20.....		·027	4·88	·040	·23	39	·42
June 9.....		·013	4·19	·020	·12	47	·21
" 29.....		·007	3·80	·007	·06	52	·07
July 19.....		·000	3·57	·007	·00	54	·07
August 8.....		·000	3·65	·000	·00	55	·00
" 28.....		·007	4·05	·007	·06	52	·07
September 17.....		·013	4·64	·020	·12	47	·21
October 7.....		·020	5·48	·040	·17	39	·42
" 27.....		·040	6·55	·053	·35	30	·56
November 16.....		·047	7·77	·080	·41	19	·85
December 6.....		·067	8·94	·093	·58	9	·90
" 26.....		·080	9·99	+ ·113	+ ·70	0	—1·29

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	·007	+ 124·40	1122	+ ·185					
29	·007	118·39	1079	·188					
30	·008	112·27	1034	·192					
31	·008	106·07	987	·195	45	·013	0·00	0	+ ·242
32	·008	99·67	937	·198	46	·013	9·47	101	·249
33	·009	93·13	885	·202	47	·014	19·20	208	·257
34	·009	86·47	829	·205	48	·014	29·40	320	·264
35	·009	79·67	771	·208	49	·015	39·93	439	·272
36	·010	72·67	710	·212	50	·015	50·93	564	·279
37	·010	65·47	647	·215	51	·015	62·40	697	·287
38	·010	58·13	579	·218	52	·016	74·40	837	·294
39	·011	50·53	509	·222	53	·016	86·93	986	·302
40	·011	42·73	434	·225	54	·017	100·00	1144	·309
41	·011	34·73	356	·228	55	·017	113·80	1310	·317
42	·012	26·47	273	·232	56	·018	128·27	1491	+ ·324
43	·012	17·93	187	·235					
44	·012	+ 9·13	96	+ ·238					

Polaris Z, Dist. = 45° 38'.

1889.		a LEONIS (<i>Regulus</i>).					
Z.		S. T.			Az. W.		
32° 29' S.		9 ^h 59 ^m			1° 21'.		
		<i>l</i> .	<i>s</i> .	<i>l'</i> .	<i>a</i>	<i>"</i>	<i>a'</i>
January 0.....		·058	27·67	·067	+ ·40	41	·87
" 20.....		·060	28·41	·087	·45	33	1·13
February 9.....		·073	28·91	·087	·55	29	1·13
March 1.....		·067	29·06	·093	·50	28	1·21
" 21.....		·067	28·86	·087	·50	31	1·13
April 10.....		·060	28·47	·073	·45	37	·95
" 30.....		·047	27·89	·060	·35	45	·78
May 20.....		·033	27·43	·047	·25	53	·61
June 9.....		·027	26·89	·020	·20	62	·26
" 29.....		·013	26·36	·013	·10	68	·17
July 19.....		·007	26·26	·000	·05	73	·00
August 8.....		·000	26·15	·000	·10	74	·00
" 28.....		·007	26·37	·000	·05	74	·00
September 17.....		·013	26·76	·007	·10	70	·09
October 7.....		·020	27·35	·020	·15	64	·26
" 27.....		·033	28·20	·033	·25	56	·43
November 16.....		·047	29·15	·053	·35	46	·69
December 6.....		·060	30·21	·080	·45	36	1·04
" 26.....		·073	31·19	·100	+ ·35	26	1·30

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s</i> .	<i>"</i>						
28	·004	+ 109 00	— 982	·246					
29	·004	103·73	945	·250					
30	·005	98·33	905	·254					
31	·005	92·87	863	·258	45	·011	+ 0·00	0	+ ·317
32	·005	87·33	820	·262	46	·012	8·20	89	·323
33	·006	81·60	774	·267	47	·012	16·80	182	·330
34	·006	75·73	725	·271	48	·013	25·73	281	·337
35	·007	69·80	675	·275	49	·014	34·93	384	·343
36	·007	63·67	621	·279	50	·014	44·60	494	·350
37	·008	57·33	565	·283	51	·015	54·60	610	·357
38	·008	50·93	506	·287	52	·016	65·13	734	·363
39	·008	44·27	444	·292	53	·016	76·07	864	·370
40	·009	37·47	379	·296	54	·017	87·53	1009	·377
41	·009	30·53	311	·300	55	·018	99·60	1150	·383
42	·010	23·27	239	·304	56	·018	+ 119·27	+ 1306	+ ·390
43	·010	15·73	163	·308					
44	·011	+ 8·00	— 83	·313					

Polaris Z. Dist. = 45° 49'.

1880.		β URSÆ MAJORIS.				
Z.		S. T.			Az. W.	
11° 59' N.		10h 56m			1° 1'.	
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>a'.</i>
January 0.....		·040	42·14	+·060	+·86	49 —·71
" 20.....		·080	42·81	·080	·54	40 —·94
February 0.....		·067	43·41	·087	·60	34 1·02
March 1.....		·078	43·70	·093	·66	31 1·10
" 21.....		·078	43·80	·093	·66	32 1·10
April 10.....		·067	43·63	·086	·60	35 1·02
" 30.....		·058	43·39	·073	·48	49 —·86
May 20.....		·047	43·06	·060	·42	50 —·71
June 9.....		·027	42·72	·040	·24	59 —·47
" 29.....		·020	42·45	·020	·18	67 —·24
July 19.....		·007	42·24	·013	·06	73 —·16
August 8.....		·000	42·12	·000	·00	77 —·00
" 28.....		·000	42·18	·000	·00	79 —·00
September 17.....		·007	42·34	·000	·06	78 —·00
October 7.....		·013	42·73	·007	·12	74 —·08
" 27.....		·020	42·86	·020	·18	68 —·24
November 16.....		·033	43·84	·040	·30	59 —·47
December 6.....		·047	44·68	·060	·42	50 —·71
" 26.....		·060	45·49	+·073	+·54	40 —·86

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·018	82·47	744	+·284					
29	·018	78·47	716	·290					
30	·017	74·40	686	·296					
31	·017	70·33	654	·302	45	+·010	0·00	0	+·383
32	·016	66·13	621	·308	46	·009	6·37	67	·392
33	·016	61·80	586	·313	47	·008	12·73	138	·400
34	·015	57·33	550	·319	48	·008	19·47	212	·408
35	·015	52·87	511	·325	49	·007	26·47	291	·417
36	·014	48·20	471	·331	50	·006	33·80	374	·425
37	·014	43·47	428	·337	51	·005	41·40	462	·433
38	·013	38·53	384	·348	52	·005	49·33	555	·442
39	·013	33·53	337	·348	53	·004	57·60	654	·450
40	·012	28·40	287	·354	54	·003	66·27	759	·458
41	·012	23·07	236	·360	55	·002	75·40	870	·467
42	·011	17·53	181	·366	56	+·001	85·00	989	+·475
43	·011	11·93	124	·372					
44	+·010	6·07	63	+·378					

Polaris Z. Dist. = 48° 3'.

1880.	α URSÆ MAJORIS.					
Z.	S. T.			Az. W.		
16° 21' N.	10 ^h 59 ^m			1° 0'.		
	<i>l.</i>	<i>s.</i>	<i>l'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....	·040	28·20	+·067	+·36	43	·87
" 20.....	·053	28·79	·080	·48	36	1·04
February 9.....	·080	29·37	·093	·54	30	1·21
March 1.....	·067	30·11	·100	·60	27	1·80
" 21.....	·067	30·21	·100	·60	23	1·80
April 10.....	·080	29·64	·093	·54	31	1·21
" 30.....	·047	29·43	·080	·42	38	1·04
May 20.....	·040	29·12	·060	·36	46	·78
June 9.....	·037	28·78	·047	·24	55	·61
" 29.....	·018	28·60	·027	·12	62	·35
July 19.....	·018	28·42	·013	·12	69	·17
August 8.....	·007	28·37	·000	·06	73	·00
" 28.....	·000	28·40	·000	·00	75	·00
September 17.....	·000	28·50	·007	·00	74	·09
October 7.....	·007	28·81	·007	·06	70	·09
" 27.....	·013	29·23	·013	·12	64	·17
November 16.....	·027	29·93	·040	·24	56	·52
December 6.....	·040	30·65	·060	·36	46	·78
" 26.....	·053	31·40	+·080	+·48	36	—1·04

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	+·026	81·06	732	+·290					
29	·026	77·19	704	·295					
30	·025	73·19	675	·300					
31	·025	69·12	644	·305	45	+·016	0·00	0	+·375
32	·024	64·92	611	·310	46	·015	6·20	64	·383
33	·024	60·72	577	·315	47	·015	12·60	135	·390
34	·023	56·32	541	·320	48	·014	19·20	208	·398
35	·022	51·92	503	·325	49	·013	26·07	286	·405
36	·021	47·32	463	·330	50	·013	33·27	367	·413
37	·021	42·60	421	·335	51	·012	40·73	454	·420
38	·020	37·86	378	·340	52	·011	48·53	545	·428
39	·020	32·92	331	·345	53	·010	56·67	643	·435
40	·019	27·86	283	·350	54	·010	65·27	746	·443
41	·018	22·60	232	·355	55	·009	74·20	857	·450
42	·018	17·20	179	·360	56	+·008	83·67	972	+·458
43	·017	11·67	122	·365					
44	+·017	5·93	63	+·370					

Polaris Z. Dist. = 46° 3'.

1889.		γ CEPHEI, S. P.					
Z.		S. T.			Az. W.		
57° 59' N.		11h 21 ^m			0° 51'.		
		<i>t.</i>	<i>s.</i>	<i>l.</i>	<i>a</i>	<i>s</i>	<i>a'</i>
January 0.....		·040	42.53	+ ·060	+ ·38	55	— 78
" 20.....		·053	43.28	·080	·51	46	1·04
February 9.....		·067	43.49	·093	·64	39	1·21
March 1.....		·073	43.59	·100	·70	35	1·30
" 21.....		·073	44.09	·093	·70	35	·21
April 10.....		·067	44.03	·093	·54	38	1·04
" 30.....		·060	43.89	·080	·57	44	0·87
May 20.....		·058	43.86	·067	·45	52	·61
June 9.....		·040	43.56	·053	·28	60	·17
" 29.....		·027	43.39	·033	·25	68	·43
July 19.....		·013	43.31	·020	·13	75	·26
August 8.....		·013	43.36	·007	·13	80	·09
" 28.....		·000	43.37	·000	·00	83	·00
September 17.....		·000	43.35	·007	·00	83	·09
October 7.....		·007	43.61	·013	·06	80	·17
" 27.....		·013	43.94	·020	·13	75	·26
November 16.....		·027	44.29	·033	·25	68	·43
December 6.....		·040	44.90	·047	·38	59	·1
" 26.....		·058	45.41	+ ·067	+ ·51	49	— ·87

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	—103	<i>N.</i> 69.40	<i>"</i> 626	+ ·351					
29	·104	66.00	602	·357					
30	·104	62.60	577	·360					
31	·105	59.13	550	·368	45	—114	<i>N.</i> 0.00	<i>"</i> 0	+ ·450
32	·106	55.53	523	·374	46	·115	5.27	56	·467
33	·106	51.93	493	·380	47	·116	10.73	115	·483
34	·107	48.20	463	·386	48	·117	16.40	178	·500
35	·108	44.40	430	·392	49	·118	22.33	244	·517
36	·108	40.47	396	·498	50	·119	28.40	314	·533
37	·109	36.47	360	·403	51	·120	34.80	388	·550
38	·110	32.40	323	·409	52	·121	41.47	467	·567
39	·110	28.13	283	·415	53	·122	48.47	550	·583
40	·111	23.80	242	·421	54	·122	55.80	638	·600
41	·112	19.33	198	·427	55	·123	63.47	731	·617
42	·112	14.73	153	·433	56	—124	71.54	831	+ ·633
43	·113	10.00	104	·438					
44	—114	5.07	54	+ ·444					

Polaris Z. Dist. = 48° 8'.

1889.		λ DRACONIS.					
Z.		S. T.			Az. W.		
22° 57' N.		11h 28m			0° 48'		
		<i>l.</i>	<i>s.</i>	<i>l'.</i>	<i>a.</i>	<i>"</i>	<i>a.</i>
January 0	003	48 97	+ 060	+ 30	60	—	62
" 20	053	49 60	080	48	50		83
February 9	060	50 17	093	54	43		96
March 1	067	50 56	100	60	39		1 08
" 21	067	50 72	107	60	39		1 10
April 10	060	50 68	100	54	39		1 03
" 30	053	50 61	087	48	47		89
May 20	047	50 20	073	42	55		76
June 9	027	49 96	060	24	63		62
" 29	020	49 76	033	18	72		34
July 19	013	49 54	020	12	79		21
August 8	007	49 40	013	06	84		14
" 28	000	49 35	007	00	87		07
September 17	000	49 51	000	00	88		00
October 7	000	49 66	013	00	84		14
" 27	013	50 11	013	12	80		14
November 16	020	50 64	033	18	73		34
December 6	033	51 44	053	30	64		55
" 26	047	52 13	+ 067	+ 42	54	—	62

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+ 042	65 47	592	+ 301					
29	042	62 33	569	307					
30	041	59 13	545	312					
31	041	55 60	520	318	45	+ 033	0 00	0	+ 400
32	040	52 47	494	324	46	032	5 00	53	410
33	040	49 00	466	330	47	031	10 13	109	420
34	039	45 53	437	336	48	030	15 47	168	430
35	038	41 93	406	342	49	030	21 07	230	440
36	038	38 20	374	348	50	029	26 37	296	450
37	037	34 47	340	353	51	028	32 37	366	460
38	037	30 60	305	359	52	027	39 20	440	470
39	036	26 60	268	365	53	027	45 30	519	480
40	036	23 47	229	371	54	026	52 67	602	490
41	035	19 27	187	377	55	025	59 23	690	500
42	035	13 23	144	383	56	+ 024	67 53	784	+ 510
43	034	9 40	99	388					
44	+ 033	4 30	51	+ 394					

Polaris Z. Dist. = 46° 8'.

1889.		γ CORVI.					
Z.		S. T.			Az. W.		
61° 54' S.		12h 8m			0° 31'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0		·033	6·77	+·053	+·29	66	·69
" 20		·053	8·08	·073	·47	56	·95
February 9		·067	9·08	·087	·58	48	1·13
March 1		·073	9·77	·100	·64	42	1·30
" 21		·080	10·10	·100	·70	40	1·30
April 10		·037	10·02	·100	·58	41	1·30
" 30		·067	9·69	·093	·78	46	1·21
May 20		·053	9·07	·080	·47	53	1·04
June 9		·040	8·35	·066	·35	62	·78
" 29		·033	7·60	·040	·29	71	·52
July 19		·020	6·90	·027	·17	79	·35
August 8		·007	6·24	·013	·06	84	·17
" 28		·007	5·85	·007	·06	90	·09
September 17		·000	5·62	·000	·00	93	·00
October 7		·000	5·87	·000	·00	92	·00
" 27		·007	6·36	·007	·06	89	·09
November 16		·013	7·16	·020	·12	83	·26
December 6		·027	8·30	·033	·23	75	·43
" 26		·040	9·58	+·053	+·35	65	·79

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	·017	+	43·13	·345					
29	·018		41·07	·352					
30	·018		38·93	·358					
31	·019		36·73	·365	45	·028	—	0·00	+·458
32	·020		34·52	·372	46	·029		3·27	·468
33	·020		32·27	·378	47	·030		6·67	·478
34	·021		30·00	·385	48	·031		10·20	·488
35	·022		27·60	·392	49	·032		13·80	·498
36	·022		25·20	·398	50	·033		17·67	·508
37	·023		22·67	·405	51	·034		21·60	·518
38	·024		20·13	·412	52	·035		25·73	·528
39	·024		17·53	·418	53	·035		30·07	·538
40	·025		14·80	·425	54	·036		34·67	·548
41	·026		12·07	·432	55	·037		39·40	·558
42	·026		9·20	·438	56	·038	—	44·40	+·568
43	·027		6·20	·445					
44	·028	+	3·20	+·452					

Polaris Z. Dist. = 46° 13'.

L.	b.	S. T.	Az.	c.
.		s.	"	
28	-018 +	34·43	- 311	+ ·353
29	-019	32·87	299	·360
30	-019	31·13	287	·367
31	-020	29·40	274	·373
32	-021	27·67	260	·380
33	-021	25·87	245	·387
34	-022	24·00	230	·393
35	-023	22·07	214	·400
36	-023	20·13	197	·407
37	-024	18·20	179	·443
38	-025	16·13	161	·420
39	-025	14·00	141	·427
40	-026	11·87	120	·433
41	-027	9·60	98	·440
42	-027	7·33	76	·447
43	-028	5·05	52	·453
44	-029 +	2·52	- 26	+ ·460

Polaris Z. Dist. = $46^{\circ} 15'$.

1889.		<i>a</i> CASSIOPEIÆ, S. P.					
Z.		S. T.			Az. W.		
79° 4' N.		12h 31 ^m			0° 21'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		·033	41·14	+·053	+·32	30	·64
" 20.....		·020	41·68	·033	·19	21	·40
February 9.....		·013	42·07	·013	·13	12	·16
March 1.....		·000	42·43	·007	·00	6	·08
" 21.....		·000	42·62	·000	·00	3	·00
April 10.....		·000	42·77	·000	·00	3	·00
" 30.....		·007	42·76	·007	·00	8	·08
May 20.....		·020	42·80	·020	·06	14	·24
June 9.....		·040	42·67	·033	·19	22	·40
" 29.....		·047	42·55	·047	·38	30	·56
July 19.....		·060	42·79	·067	·45	39	·80
August 8.....		·080	42·46	·080	·57	46	·96
" 28.....		·073	42·35	·080	·70	51	·96
September 17.....		·073	42·31	·100	·70	55	1·20
October 7.....		·073	42·58	·100	·70	55	1·20
" 27.....		·060	42·74	·93	·70	53	1·12
November 16.....		·053	43·08	·87	·57	48	1·04
December 6.....		·040	43·48	·73	·51	41	·88
" 26.....		·040	44·02	+·53	+·38	32	·64

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
•		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	·043 +	27·87	251	+·370					
29	·044	26·53	242	·377					
30	·044	25·13	232	·383					
31	·045	23·73	222	·390	45	·056 —	0·00 +	0	+·483
32	·046	22·33	210	·397	46	·057	2·13	23	·494
33	·047	20·87	199	·403	47	·058	4·33	47	·504
34	·048	19·40	186	·410	48	·059	6·60	72	·516
35	·048	17·87	173	·417	49	·060	8·93	98	·527
36	·049	16·27	159	·423	50	·061	11·40	126	·537
37	·050	14·67	145	·430	51	·062	14·00	153	·548
38	·051	13·00	130	·437	52	·063	16·67	188	·559
39	·051	11·33	114	·443	53	·064	19·47	221	·570
40	·053	9·60	97	·450	54	·065	22·40	257	·581
41	·054	7·80	80	·457	55	·066	25·53	294	·592
42	·055	5·93	61	·463	56	·067 —	28·73 +	334	+·602
43	·055	4·00	42	·470					
44	·056 +	2·00 —	21	+·477					

Polaris Z. Dist. = 46° 15'.

1889.	γ CASSIOPEIÆ, S. P.					
Z.	S. T.			Az. W.		
74° 58' N.	12 ^h 48 ^m			0° 13'		
	<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>n</i>	<i>u.</i>
January 0.....	·040	12·03	+·060	+·48	57	—1·64
" 20.....	·027	12·60	·040	·32	47	·42
February 9.....	·013	13·02	·027	·16	39	·28
March 1.....	·000	13·10	·013	·00	32	·14
" 21.....	·000	13·63	·000	·00	29	·00
April 10.....	·000	13·80	·000	·00	28	·00
" 30.....	·000	13·84	·013	·00	32	·14
May 20.....	·007	13·84	·020	·08	38	·21
June 9.....	·020	13·71	·033	·24	45	·35
" 29.....	·033	13·61	·053	·40	52	·56
July 19.....	·047	13·56	·073	·56	63	·78
August 8.....	·053	13·48	·093	·64	71	·99
" 28.....	·067	13·40	·100	·80	76	1·06
September 17.....	·073	13·30	·107	·88	81	1·13
October 7.....	·067	13·42	·113	·80	82	1·20
" 27.....	·067	13·62	·113	·80	80	1·20
November 18.....	·060	13·91	·107	·72	72	1·13
December 6.....	·053	14·35	·087	·64	70	·92
" 26.....	—·047	14·81	+·067	+·56	61	—·71

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	052	+	17 87	-	161	+	378		
29	052		17 00		155		385		
30	053		16 15		148		392		
31	054		15 27		142		398		
32	054		14 33		134		405		
33	054		13 40		127		412		
34	055		12 40		119		418		
35	056		11 47		110		425		
36	056		10 47		102		432		
37	057		9 40		93		438		
38	057		8 33		83		445		
39	058		7 27		73		452		
40	059		6 13		62		458		
41	060		5 00		52		465		
42	061		3 80		39		472		
43	061		2 60		27		478		
44	062	+	1 33	-	14	+	485		

Polaris Z. Dist. = $46^{\circ} 16'$.

1889.		URSÆ MAJOR.					
Z.		S. T.			Az. W.		
11° 34' N.		12 ^h 49 ^m			0° 12'.		
		<i>t.</i>	<i>a.</i>	<i>t'.</i>	<i>a</i>	<i>a'</i>	
January 9	.....	·033	26·89	+·060	+·86	82	·65
" 20	.....	·047	27·57	·080	·51	73	·87
February 9	.....	·060	28·15	·093	·65	64	1·01
March 1	.....	·067	28·77	·013	·72	57	1·23
" 21	.....	·073	29·12	·120	·79	54	1·30
April 10	.....	·073	29·25	·120	·79	53	1·30
" 30	.....	·073	29·25	·113	·79	59	1·23
May 20	.....	·060	29·06	·100	·65	63	1·08
June 9	.....	·047	28·79	·187	·51	69	·94
" 29	.....	·040	28·53	·067	·43	79	·72
July 19	.....	·027	28·19	·047	·29	88	·51
August 8	.....	·013	27·38	·033	·14	96	·36
" 28	.....	·007	27·64	·020	·07	102	·22
September 17	.....	·000	27·49	·000	·00	106	·00
October 7	.....	·000	27·48	·007	·00	107	·07
" 27	.....	·000	27·75	·013	·00	106	·14
November 16	.....	·007	28·15	·020	·07	102	·22
December 6	.....	·013	28·74	·040	·14	92	·43
" 26	.....	·027	29·51	+·053	+·29	87	·50

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>a.</i>	<i>"</i>				<i>a.</i>	<i>"</i>	
28	+·022	+ 18·20	— 164	+·345					
29	·021	17·33	158	·352					
30	·021	16·47	151	·358					
31	·020	15·53	144	·365	45	+·011	— 0·00	+ 0	+·458
32	·019	14·60	137	·372	46	·010	1·40	15	·468
33	·019	13·67	129	·378	47	·009	2·87	31	·478
34	·018	12·67	121	·385	48	·008	4·33	47	·488
35	·017	11·67	113	·392	49	·007	5·87	65	·498
36	·017	10·67	104	·398	50	·006	7·47	83	·508
37	·016	9·60	95	·405	51	·005	9·13	102	·518
38	·015	8·53	85	·412	52	·004	10·93	123	·528
39	·015	7·40	74	·418	53	·003	12·73	145	·538
40	·014	6·27	63	·425	54	·002	14·67	168	·548
41	·013	5·07	52	·432	55	·001	16·67	193	·558
42	·013	3·87	40	·438	56	+·000	— 18·80	+ 219	+·568
43	·012	2·60	27	·445					
44	+·011	+ 1·33	— 14	+·442					

Polaris Z. Dist. = 45° 58'.

1889.	α VIRGINIS (<i>Spica</i>).					
Z.	S. T.			Az. E.		
55° 35' S.	13 ^h 19 ^m			0° 0'.		
	<i>l.</i>	<i>n.</i>	<i>l.</i>	<i>"</i>	<i>"</i>	<i>a'</i>
January 0.....	+·053	21·06	—·060	+·49	27	—·70
" 20.....	·033	22·26	·040	·31	37	·47
February 9.....	·020	23·38	·027	·18	46	·31
March 1.....	·007	24·26	·007	·06	54	·08
" 21.....	·000	24·32	·007	·00	59	·08
April 10.....	·000	25·18	·000	·00	60	·00
" 30.....	·007	25·14	·007	·06	58	·08
May 20.....	·013	24·75	·013	·12	53	·16
June 9.....	·020	24·25	·027	·18	45	·31
" 29.....	·033	23·61	·053	·31	36	·62
July 19.....	·047	22·85	·067	·43	31	·78
August 8.....	·060	22·08	·073	·35	18	1·01
" 28.....	·073	21·54	·100	·68	9	1·17
September 17.....	·073	21·06	·107	·68	6	1·24
October 7.....	·087	20·92	·113	·80	3	1·32
" 27.....	·087	21·08	·120	·80	2	1·40
November 16.....	·080	21·57	·107	·74	6	1·24
December 6.....	·073	22·44	·093	·68	11	1·09
" 26.....	·060	23·47	—·080	+·55	20	—·98

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	—·014	1·34	12	—·362					
29	—·015	1·27	12	—·368					
30	—·015	1·20	11	—·375					
31	—·016	1·14	11	—·382	45	—·027	+ 0·00	+ 0	+·475
32	—·017	1·07	10	—·388	46	—·028	0·07	1	·486
33	—·018	1·00	10	—·395	47	—·029	0·20	3	·497
34	—·018	0·94	9	—·402	48	—·029	0·27	4	·507
35	—·019	0·87	8	—·408	49	—·030	0·40	5	·518
36	—·020	0·80	7	—·415	50	—·031	0·53	6	·529
37	—·021	0·73	7	—·422	51	—·032	0·67	8	·540
38	—·021	0·67	6	—·428	52	—·033	0·73	9	·551
39	—·022	0·60	5	—·435	53	—·034	0·93	11	·562
40	—·023	0·47	4	—·442	54	—·035	1·07	13	·572
41	—·024	0·40	4	—·448	55	—·036	1·24	14	·583
42	—·024	0·33	3	—·455	56	—·037	+ 1·33	+ 16	+·594
43	—·025	0·20	2	—·462					
44	—·026	0·13	1	—·468					

Polaris Z. Dist. = 46° 17'.

1889.		URSÆ MAJORIS.					
Z.		S. T.			Az. E.		
10° 30' N.		13 ^h 19 ^m			0° 0'.		
		<i>l.</i>	<i>n.</i>	<i>l'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		+·040	25·22	—·067	+·85	29	—·78
" 20.....		—·038	25·93	—·047	—·25	39	—·74
February 9.....		—·020	26·65	—·027	—·17	48	—·51
March 1.....		—·007	27·27	—·013	—·06	55	—·36
" 21.....		—·000	27·70	—·007	—·00	60	—·18
April 10.....		—·000	27·86	—·000	—·00	61	—·00
" 30.....		—·000	27·89	—·007	—·00	59	—·08
May 20.....		—·013	27·79	—·007	—·12	54	—·08
June 9.....		—·020	27·52	—·033	—·17	47	—·39
" 29.....		—·033	27·22	—·053	—·19	38	—·62
July 19.....		—·047	26·81	—·067	—·41	29	—·78
August 8.....		—·060	26·45	—·087	—·52	20	1·01
" 28.....		—·073	26·16	—·100	—·64	13	1·17
September 17.....		—·073	26·04	—·113	—·64	8	1·32
October 7.....		—·080	25·98	—·120	—·70	5	1·40
" 27.....		—·080	26·13	—·120	—·70	5	1·40
November 16.....		—·073	26·49	—·113	—·64	8	1·32
December 6.....		—·067	27·05	—·100	—·58	14	1·17
" 26.....		+·060	27·74	—·087	+·52	22	1·01

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·021	1·34	12	—·359					
29	—·021	1·27	12	—·365					
30	—·020	1·20	11	—·371					
31	—·019	1·14	11	—·377	45	+·010	0·00	0	—·458
32	—·019	1·07	10	—·383	46	—·009	0·13	2	—·469
33	—·018	1·00	10	—·388	47	—·008	0·27	3	—·480
34	—·017	0·94	9	—·394	48	—·007	0·33	4	—·491
35	—·017	0·87	8	—·400	49	—·006	0·47	5	—·502
36	—·016	0·74	7	—·406	50	—·005	0·60	7	—·512
37	—·015	0·67	7	—·412	51	—·004	0·73	8	—·523
38	—·015	0·60	6	—·418	52	—·003	0·87	10	—·534
39	—·014	0·53	5	—·423	53	—·002	1·00	11	—·545
40	—·013	0·47	4	—·429	54	—·002	1·13	13	—·556
41	—·013	0·33	3	—·435	55	—·001	1·26	15	—·567
42	—·012	0·27	2	—·441	56	+·000	1·40	17	—·577
43	—·011	0·13	1	—·447					
44	+·011	0·07	0	—·453					

Polaris Z. Dist. = 46° 17'.

1889.		β CENTAURI.						
Z.		S. T.			Az. E.			
104° 50' S.		13h 58m			0° 18'.			
		<i>t.</i>	<i>s.</i>	<i>t.</i>	<i>a.</i>	<i>s.</i>	<i>a.</i>	
January 0.....		+060	19·53	....	+58	26	....	
" 20.....		047	21·85	....	45	36	....	
February 9.....		033	24·24	....	32	46	....	
March 1.....		013	26·34	....	13	55	....	
" 21.....		007	27·84	....	06	62	....	
April 10.....		000	28·69	....	00	65	....	
" 30.....		000	28·85	....	00	64	....	
May 20.....		007	28·28	....	06	59	....	
June 9.....		020	27·18	....	19	53	....	
" 29.....		033	25·49	....	32	43	....	
July 19.....		047	23·64	....	45	34	....	
August 8.....		060	21·72	....	58	24	....	
" 28.....		073	19·96	....	71	15	....	
September 17.....		080	18·44	....	77	7	....	
October 7.....		087	17·68	....	84	3	....	
" 27.....		093	17·49	....	90	1	....	
November 16.....		093	18·73	....	90	2	....	
December 6.....		087	19·42	....	84	6	....	
" 26.....		+073	21·43	....	+71	14	....	

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	051	25·27	228	364	45	044			
29	052	24·00	219	372	46	040			
30	052	22·80	210	379	47	041			
31	053	21·53	201	387	48	042			
32					49	043			
33					50	043			
34					51	044			
35					52	045			
36					53	046			
37					54	046			
38		Invis ible			55	047			
39					56	048			
40									
41									
42									
43									
44									

Polaris Z. Dist. = 46° 16'.

1889, *ALPHA* *BOOTIS* (*Arcturus*).

Z.	S. T.			Az. E.		
	14h 11m			60° 23'		
25° 14' S.	<i>t.</i>	<i>s.</i>	<i>t.</i>	<i>a.</i>	<i>"</i>	<i>a.</i>
January 0.....	+ .053	18.53	— .080	+ .51	84	— .88
" 20.....	.040	19.46	.060	.39	89	.66
February 9.....	.027	20.36	.047	.26	99	.52
March 1.....	.013	21.18	.027	.13	107	.29
" 21.....	.013	21.80	.013	.13	114	.15
April 10.....	.000	22.23	.007	.00	117	.07
" 30.....	.000	22.31	.000	.00	117	.00
May 20.....	.007	22.27	.013	.06	113	.15
June 9.....	.020	21.93	.020	.19	107	.22
" 29.....	.033	21.49	.040	.32	98	.44
July 19.....	.040	21.04	.060	.39	89	.66
August 8.....	.060	20.43	.080	.58	80	.88
" 28.....	.067	19.87	.100	.64	71	1.11
September 17.....	.080	19.43	.113	.77	64	1.25
October 7.....	.087	19.17	.120	.84	59	1.33
" 27.....	.093	19.06	.127	.90	56	1.40
November 16.....	.087	19.36	.127	.84	57	1.40
December 6.....	.080	19.92	.120	.77	60	1.33
" 26.....	+ .073	20.69	— .107	+ .71	67	— 1.18

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	.002	33.00	298	.359					
29	.002	31.40	287	.365					
30	.003	29.80	275	.371					
31	.004	28.18	262	.377	45	— .014	0.00	0	.458
32	.005	26.47	249	.383	46	— .015	2.53	27	.470
33	.005	24.73	235	.388	47	— .016	5.13	55	.482
34	.006	22.93	220	.394	48	— .017	7.87	85	.493
35	.007	21.13	205	.400	49	— .018	10.67	118	.505
36	.007	19.27	189	.406	50	— .019	13.53	152	.517
37	.008	17.33	172	.412	51	— .020	16.60	185	.528
38	.009	15.40	154	.418	52	— .020	19.80	222	.540
39	.010	13.40	135	.423	53	— .021	23.13	262	.552
40	.010	11.33	115	.429	54	— .022	26.60	304	.563
41	.011	9.20	94	.435	55	— .023	30.27	348	.575
42	.011	7.00	73	.441	56	— .024	34.07	396	.587
43	.012	4.73	51	.447					
44	.013	2.40	26	.453					

Polaris Z. Dist. = 46° 15'.

1889.	β URSÆ MINORIS.					
Z.	S. T.			Az. E.		
29° 37' N.	14 ^h 46 ^m			0° 39'.		
	<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....	+·060	2·89	—·080	+·58	43	—·88
" 20.....	·047	3·61	·067	·45	52	·74
February 9.....	·033	4·27	·053	·32	61	·59
March 1.....	·020	4·79	·027	·19	70	·29
" 21.....	·013	5·27	·013	·18	77	·15
April 10.....	·000	5·66	·013	·00	82	·15
" 30.....	·000	5·83	·000	·00	82	·00
May 20.....	·007	5·96	·007	·06	80	·07
June 9.....	·013	5·79	·020	·13	75	·22
" 29.....	·027	5·62	·033	·26	67	·37
July 19.....	·033	5·36	·053	·32	58	·59
August 8.....	·047	5·03	·073	·45	48	·81
" 28.....	·067	4·63	·087	·64	39	·96
September 17.....	·080	4·39	·107	·77	31	1·18
October 7.....	·037	4·44	·127	·84	22	1·40
" 27.....	·093	4·08	·127	·90	20	1·40
November 16.....	·093	4·15	·127	·90	19	1·40
December 6.....	·087	4·51	·127	·84	21	1·40
" 26.....	+·087	4·96	—·113	+·84	27	—1·25

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
•		<i>s.</i>	<i>"</i>						
28	+·060	53·47	483	—·318					
29	+·059	50·87	464	·323					
30	+·059	48·27	445	·329					
31	+·058	45·60	424	·385	45	+·049	+ 0·00	+ 0	—·417
32	+·057	42·87	403	·341	46	+·049	+ 4·07	+ 43	·426
33	+·057	40·07	380	·347	47	+·048	+ 8·27	+ 89	·435
34	+·056	37·20	357	·353	48	+·047	+ 12·67	+ 137	·444
35	+·056	34·20	332	·358	49	+·046	+ 17·25	+ 186	·458
36	+·055	31·20	306	·364	50	+·045	+ 21·93	+ 240	·462
37	+·054	28·13	278	·370	51	+·044	+ 26·87	+ 298	·473
38	+·054	25·00	249	·376	52	+·043	+ 32·00	+ 359	·481
39	+·053	21·73	218	·382	53	+·042	+ 37·33	+ 423	·490
40	+·052	18·40	187	·388	54	+·041	+ 43·00	+ 491	·499
41	+·052	15·93	153	·393	55	+·040	+ 48·93	+ 564	·508
42	+·051	11·40	118	·399	56	+·039	+ 55·13	+ 641	—·517
43	+·051	7·73	81	·405					
44	+·050	3·93	49	—·411					

Polaris Z. Dist. = 46° 11'.

1889.		β LIBRÆ.					
Z.		S. T.			Az. E.		
53° 59' S.		15 ^h 13 ^m			0° 51'		
		<i>l.</i>	<i>n.</i>	<i>l.</i>	<i>a.</i>	<i>n.</i>	<i>a.</i>
January 0.....		+060	49·24	—087	+58	95	—1·04
" 20.....		047	49·64	073	45	33	·88
February 9.....		038	50·81	058	82	42	·64
March 1.....		027	51·86	038	26	52	·40
" 21.....		013	52·84	018	13	60	·16
April 10.....		000	53·58	007	00	65	·08
" 30.....		000	53·94	000	00	67	00
May 20.....		000	54·04	007	00	66	·08
June 9.....		007	53·84	018	06	61	·16
" 29.....		020	53·45	027	19	54	·82
July 19.....		027	52·83	053	26	45	·56
August 8.....		047	51·92	067	45	35	·80
" 28.....		060	51·08	087	58	25	1·04
September 17.....		073	50·34	107	71	15	1·20
October 7.....		087	49·74	120	84	8	1·44
" 27.....		087	49·41	133	84	3	1·60
November 16.....		093	49·42	133	90	1	1·60
December 6.....		093	49·82	133	90	2	1·60
" 26.....		+087	50·52	—127	+84	6	—1·52

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	013	69 00	623	·318					
29	013	65·67	599	·323					
30	014	62·27	574	·329					
31	015	58·80	547	·335	45	022	+ 0·00	+ 0	—417
32	015	55·27	520	·341	46	023	5·27	56	·427
33	016	51·67	490	·347	47	024	10·67	115	·437
34	016	47·93	460	·353	48	025	16·33	178	·447
35	017	44·19	428	·358	49	026	22·20	244	·457
36	017	40·27	394	·364	50	027	28·27	313	·467
37	018	36·33	358	·370	51	028	34·67	387	·477
38	018	32·20	321	·376	52	028	41·27	465	·487
39	019	28·00	280	·382	53	029	48·27	547	·497
40	020	23·67	240	·388	54	030	55·54	635	·507
41	020	19·27	196	·393	55	031	63·14	728	·517
42	021	14·67	151	·399	56	032	+ 71·20	+ 827	—527
43	021	9·93	104	·405					
44	022	5·07	53	·411					

Polaris Z. Dist. = 46° 7'.

1889.		γ^s URSÆ MINORIS.					
Z.		S. T.			Az. E.		
27° 14' N.		15 ^h 15 ^m			0° 51'.		
		<i>l.</i>	<i>a.</i>	<i>l'.</i>	<i>"</i>	<i>"</i>	<i>a'</i>
January 0.....		+·060	38·46	—·087	+·58	70	—·99
" 20.....		·047	39·16	·073	·45	78	·84
February 9.....		·033	39·71	·053	·32	87	·61
March 1.....		·020	40·46	·040	·19	96	·46
" 21.....		·007	40·92	·020	·06	104	·23
April 10.....		·000	41·29	·013	·00	109	·15
" 30.....		·000	41·66	·000	·00	111	·00
May 20.....		·000	41·81	·013	·00	110	·15
June 9.....		·007	41·65	·013	·06	105	·15
" 29.....		·020	41·48	·033	·19	98	·38
July 19.....		·027	41·29	·047	·26	89	·53
August 8.....		·040	40·98	·067	·39	79	·76
" 28.....		·060	40·53	·087	·58	70	·99
September 17.....		·067	40·16	·113	·64	60	1·30
October 7.....		·080	39·82	·120	·77	53	1·37
" 27.....		·087	39·76	·133	·84	48	1·52
November 16.....		·093	39·72	·140	·90	46	1·60
December 6.....		·087	40·02	·140	·84	47	1·60
" 26.....		+·080	40·52	—·134	+·77	51	—1·52

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>N.</i>	<i>"</i>						
28	+·048	70·00	631	—·293					
29	·047	66·60	607	·298					
30	·047	63·14	582	·304					
31	·046	59·67	555	·310	45	+·038	0·00	0	—·392
32	·045	56·07	527	·316	46	·037	5·33	57	·402
33	·045	52·40	497	·322	47	·035	10·87	118	·412
34	·044	48·60	466	·328	48	·034	16·60	180	·422
35	·044	44·80	434	·333	49	·032	22·53	247	·432
36	·043	40·87	399	·339	50	·031	28·73	318	·442
37	·043	36·80	363	·345	51	·030	35·13	392	·452
38	·042	32·67	325	·351	52	·028	41·87	471	·462
39	·042	28·40	285	·357	53	·027	48·93	555	·472
40	·041	24·00	244	·363	54	·025	56·33	644	·482
41	·041	19·53	200	·368	55	·024	64·06	739	·492
42	·040	14·87	154	·374	56	+·022	72·13	839	—·502
43	·039	10·07	105	·380					
44	+·039	5·07	54	—·386					

Polaris Z. Dist. = 46° 7'.

1889.		α PERSEI, S. P.					
Z.		S. T.			Az. E.		
85° 32' N.		15 ^h 22 ^m			0° 54'.		
		<i>t.</i>	<i>a.</i>	<i>t.</i>	<i>a.</i>	<i>a.</i>	
January 0	.....	+ 053	0 17	— 080	+ 51	45	— 95
" 20	.....	047	0 42	060	45	52	71
February 9	.....	033	0 93	047	32	61	55
March 1	.....	027	1 26	020	26	70	23
" 21	.....	013	1 73	007	13	78	08
April 10	.....	000	1 77	000	00	83	00
" 30	.....	000	2 06	000	00	86	00
May 20	.....	007	2 11	000	06	84	00
June 9	.....	007	2 19	007	06	80	08
" 29	.....	013	2 35	020	13	73	24
July 19	.....	027	2 24	040	26	65	47
August 8	.....	040	2 03	060	39	55	71
" 28	.....	060	2 02	070	58	45	87
September 17	.....	073	1 79	093	71	36	1 12
October 7	.....	080	1 65	107	77	28	1 26
" 27	.....	087	1 55	120	84	23	1 44
November 16	.....	093	1 60	127	90	20	1 50
December 6	.....	087	1 86	127	84	21	1 50
" 26	.....	+ 087	2 12	— 113	+ 84	23	— 1 30

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28									
29									
30									
31					45	— 043	+ 0 00	+ 0	— 425
32		Invis ible			46	043	5 47	59	434
33					47	044	11 20	122	443
34					48	045	17 13	188	453
35					49	045	23 40	258	462
36					50	046	29 87	333	471
37					51	047	36 67	411	480
38					52	047	43 73	494	489
39					53	048	51 07	582	498
40	— 040	25 27	256	— 396	54	049	58 80	675	508
41	040	20 53	210	402	55	049	66 93	774	517
42	041	15 67	162	408	56	050	+ 75 47	+ 879	— 526
43	042	10 60	111	413					
44	042	5 40	57	419					

Polaris Z. Dist. = 46° 7'.

1889.		J PERSEI, S. P.					
Z.		S. T.			Az. E.		
87° 34' N.		15 ^h 41 ^m			1° 1'.		
		<i>l.</i>	<i>s.</i>	<i>l'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		+·060	9·33	—·080	+·64	75	—·90
" 20.....		·053	9·63	·067	·57	82	·75
February 9.....		·040	10·13	·053	·43	90	·60
March 1.....		·027	10·46	·027	·29	99	·30
" 21.....		·013	10·86	·013	·14	108	·15
April 10.....		·007	11·08	·000	·07	113	·00
" 30.....		·000	11·33	·000	·00	117	·00
May 20.....		·000	11·44	·000	·00	116	·00
June 9.....		·007	11·53	·007	·07	112	·08
" 29.....		·020	11·52	·020	·21	106	·23
July 19.....		·027	11·49	·033	·29	98	·38
August 8.....		·047	11·33	·053	·50	88	·60
" 28.....		·060	11·23	·073	·64	78	·83
September 17.....		·073	11·00	·093	·79	68	1·05
October 7.....		·080	10·93	·113	·86	60	1·28
" 27.....		·093	10·81	·120	1·00	54	1·35
November 16.....		·093	10·96	·133	1·00	50	1·50
December 6.....		·093	11·10	·133	1·00	50	1·50
" 26.....		+·093	11·33	—·127	+1·00	53	—1·43

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28									
29									
30									
31					45	—·044	+ 0·00	+ 0	—333
32		Invis	ible		46	·040	6·40	67	·343
33					47	·041	12·87	139	·352
34					48	·042	19·67	214	·361
35					49	·043	26·73	293	·370
36					50	·043	34·13	378	·379
37					51	·044	41·80	466	·388
38					52	·045	49·80	561	·398
39					53	·046	58·20	660	·407
40					54	·046	67·00	766	·416
41		<i>s.</i>	<i>"</i>		55	·047	76·20	879	·425
42	—·038	17·73	184	—316	56	—·048	+ 85·89	+ 999	—434
43	·038	12·07	126	·322					
44	—·039	6·13	63	—328					

Polaris Z. Dist. = 46° 4'.

1889.		β SCORPII.					
Z.		S. T.			Az. E.		
64° 30' S.		16 ^h 3 ^m			1° 10'.		
		<i>l.</i>	<i>s.</i>	<i>l.</i>	<i>a</i>	<i>s</i>	<i>a'</i>
January 0.....	+	067	26·63	098	+	56	27 —1·13
" 20.....		060	27·63	080		51	34 ·97
February 9.....		047	28·89	067		39	42 ·81
March 1.....		027	30·20	047		23	52 ·57
" 21.....		020	31·31	027		17	60 ·32
April 10.....		007	32·21	013		06	67 ·16
" 30.....		007	32·88	000		06	71 ·00
May 20.....		000	33·17	000		00	71 ·00
June 9.....		007	33·19	013		06	69 ·16
" 29.....		020	32·82	020		17	62 ·24
July 19.....		027	32·17	040		23	54 ·49
August 8.....		047	31·27	053		39	44 ·65
" 28.....		060	30·30	080		51	34 ·97
September 17.....		067	29·37	100		56	24 1·22
October 7.....		082	28·42	113		73	15 1·38
" 27.....		098	27·88	133		79	7 1·62
November 16.....		105	27·65	140		84	3 1·70
December 6.....		109	27·79	140		90	2 1·70
" 26.....	+	104	28·44	140	+	84	4 —1·70

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	+	015	94·27	—287					
29		015	89·73	—292					
30		013	85·07	—296					
31		016	80·33	—300	45	—023	+	0·00	—358
32		017	75·53	—304	46	024		7·13	—368
33		017	70·60	—308	47	025		14·60	—377
34		018	65·53	—312	48	026		22·27	—386
35		018	60·33	—317	49	026		30·27	—395
36		019	55·07	—321	50	027		38·60	—404
37		019	49·60	—325	51	028		47·27	—413
38		020	44·07	—329	52	028		56·38	—423
39		020	38·33	—333	53	029		65·87	—432
40		021	32·40	—337	54	030		75·80	—441
41		021	26·33	—342	55	031		86·20	—450
42		022	20·07	—346	56	—031	+	97·13	—459
43		022	13·70	—350				1131	
44	+	023	6·93	—354					

Polaris Z. Dist. = 45° 58'.

1880.		♂ OPHIUCHI.					
Z.		S. T.			Az. E.		
48° 24' S.		16 ^h 12 ^m			1° 13'		
		<i>l.</i>	<i>n.</i>	<i>l'.</i>	<i>a.</i>	<i>"</i>	<i>a.</i>
January 0.....		+073	9·93	—087	+69	30	—87
" 20.....		—060	10·75	—080	56	36	—80
February 9.....		—047	11·82	—067	44	44	—67
March 1.....		—033	12·90	—040	34	54	—40
" 21.....		—020	13·92	—027	19	63	—27
April 10.....		—013	14·67	—007	13	69	—07
" 30.....		—000	15·38	—007	—00	74	—07
May 20.....		—000	15·61	—000	00	74	—00
June 9.....		—007	15·63	—007	13	72	—07
" 29.....		—013	15·39	—020	16	66	—20
July 19.....		—027	14·89	—033	28	58	—33
August 8.....		—047	14·14	—053	48	48	—53
" 28.....		—053	13·38	—073	58	38	—73
September 17.....		—067	12·59	—100	67	27	—100
October 7.....		—087	11·78	—113	81	18	—113
" 27.....		—093	11·28	—133	88	11	—133
November 16.....		—107	11·04	—133	106	6	—133
December 6.....		—107	11·19	—140	104	4	—140
" 26.....		+100	11·73	—140	+96	6	—140

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	—009	98·33	887	—279					
29	—010	93·53	854	—283					
30	—010	88·73	817	—287					
31	—011	83·80	780	—292	45	—018	+ 0·00	+ 0	—350
32	—011	78·73	740	—296	46	—019	7·47	80	—358
33	—012	73·60	699	—300	47	—019	15·20	164	—367
34	—012	68·33	655	—304	48	—020	23·27	253	—375
35	—013	62·93	609	—308	49	—021	31·60	346	—383
36	—013	57·40	561	—312	50	—021	40·27	446	—392
37	—014	51·73	511	—317	51	—022	49·33	551	—400
38	—014	45·93	457	—321	52	—023	58·80	662	—408
39	—015	39·93	402	—325	53	—024	68·67	780	—417
40	—015	33·80	343	—329	54	—024	79·07	905	—425
41	—016	27·40	281	—333	55	—025	89·94	1037	—433
42	—016	20·87	216	—337	56	—026	+ 101·34	+ 1179	—442
43	—017	14·13	147	—342					
44	—017	7·20	76	—346					

Polaris Z. Dist. = 45° 56'.

1889.		η DRACONIS.					
Z.		S. T.			Az. E.		
16° 46' N.		16 ^h 19 ^m			1° 15'.		
		<i>t.</i>	<i>s.</i>	<i>t.</i>	<i>a.</i>	<i>"</i>	<i>a.</i>
January 0.....		+·060	21·54	·093	+·64	56	1·02
" 20.....		·053	22·12	·080	·37	61	·87
February 9.....		·040	22·76	·067	·43	70	·73
March 1.....		·027	23·40	·047	·29	79	·51
" 21.....		·020	24·06	·020	·21	88	·22
April 10.....		·007	24·56	·007	·07	95	·07
" 30.....		·000	24·96	·000	·00	99	·00
May 20.....		·000	25·27	·000	·00	100	·00
June 9.....		·007	25·28	·000	·07	98	·00
" 29.....		·007	25·21	·020	·07	92	·29
July 19.....		·020	25·00	·033	·21	84	·44
August 8.....		·033	24·65	·053	·36	75	·65
" 28.....		·053	24·19	·073	·50	65	·87
September 17.....		·060	23·76	·093	·64	54	1·09
October 7.....		·073	23·27	·113	·79	43	1·31
" 27.....		·087	22·98	·127	·93	37	1·45
November 16.....		·093	22·82	·140	1·00	32	1·60
December 6.....		·093	23·03	·147	1·00	30	1·67
" 26.....		+·093	23·33	·140	+1·00	22	1·60

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·022	101·53	916	·262					
29	·021	96·60	881	·267					
30	·021	91·60	844	·271					
31	·020	86·53	806	·275	45	+·013	+ 0·00	+ 0	·333
32	·020	81·33	765	·279	46	·013	7·73	82	·341
33	·019	76·00	723	·283	47	·012	15·73	169	·348
34	·019	70·53	677	·287	48	·011	24·00	261	·356
35	·018	65·00	629	·292	49	·011	32·60	358	·363
36	·018	59·27	580	·296	50	·010	41·60	460	·371
37	·017	53·40	528	·300	51	·009	50·93	569	·378
38	·017	47·40	472	·304	52	·009	60·73	683	·386
39	·016	41·20	415	·308	53	·008	70·83	805	·393
40	·016	34·87	354	·312	54	·007	81·60	934	·401
41	·015	28·33	290	·317	55	·007	92·87	1071	·408
42	·015	21·60	223	·321	56	+·006	+ 104·67	+ 1217	·416
43	·014	14·60	153	·325					
44	+·014	7·40	78	·329					

Polaris Z. Dist. = 45° 54'.

1880.		<i>a</i> SCORPII. (<i>Antares</i>).					
<i>Z.</i>		<i>S. T.</i>			<i>Az. E.</i>		
71° 11' S.		16 ^h 28 ^m			1° 18'.		
		<i>t.</i>	<i>a.</i>	<i>t'.</i>	<i>a.</i>	<i>a'</i>	
January 0.....		+·067	6·22	—·087	—·60	48	—1·05
" 20.....		·060	7·16	·073	·54	53	·89
February 9.....		·049	8·50	·060	·42	61	·73
March 1.....		·033	9·77	·040	·30	71	·49
" 21.....		·020	11·06	·027	·18	80	·32
April 10.....		·007	12·16	·007	·06	87	·08
" 30.....		·000	12·96	·000	·00	91	·00
May 20.....		·000	13·31	·000	·00	93	·00
June 9.....		·007	13·46	·000	·06	91	·00
" 29.....		·013	13·13	·013	·12	86	·16
July 19.....		·020	12·59	·027	·18	78	·32
August 8.....		·033	11·63	·047	·30	68	·57
" 28.....		·047	10·64	·073	·42	58	·89
September 17.....		·067	9·48	·087	·60	47	1·05
October 7.....		·080	8·49	·107	·72	38	1·30
" 27.....		·093	7·70	·120	·84	30	1·46
November 16.....		·093	7·37	·140	·84	24	1·70
December 6.....		·100	7·40	·140	·90	22	1·70
" 26.....		+·100	7·89	—·140	+·90	23	—1·70

LATITUDE CORRECTIONS.

<i>L.</i>	<i>b.</i>	<i>S. T.</i>	<i>Az.</i>	<i>c.</i>	<i>L.</i>	<i>b.</i>	<i>S. T.</i>	<i>Az.</i>	<i>c.</i>
°		<i>a.</i>	<i>a'</i>						
28	·015	105·40	951	·254					
29	·016	106·33	915	·258					
30	·015	95·13	876	·262	°				
31	·017	89·80	836	·267	45	—·023	0·00	0	—·325
32	·017	84·40	794	·271	46	·023	8·00	85	·333
33	·017	78·93	750	·275	47	·024	16·27	175	·340
34	·018	73·27	703	·279	48	·025	24·87	270	·348
35	·018	67·47	653	·283	49	·025	33·80	371	·355
36	·019	61·53	602	·287	50	·026	43·13	477	·363
37	·019	55·47	548	·292	51	·027	52·87	590	·370
38	·020	49·20	491	·296	52	·027	63·00	708	·378
39	·020	42·80	431	·300	53	·028	73·60	835	·385
40	·021	36·20	368	·304	54	·029	84·67	969	·393
41	·021	29·40	302	·308	55	·029	96·33	1111	·400
42	·021	22·40	232	·312	56	—·030	+ 108·58	+ 1262	—·408
43	·022	15·20	159	·317					
44	—·022	7·73	82	—·321					

Polaris *Z.* Dist. = 45° 52'.

1889.		<i>a</i> AURIGÆ (<i>Capella</i>) S.P.				
Z.		S. T.			Az. E.	
89° 7' N.		17 ^h 17 ^m			1° 32'	
		<i>t.</i>	<i>s.</i>	<i>t'</i>	<i>a.</i>	<i>a.</i>
January 0.....			22·93	—087	....	45 —1·05
" 20.....			23·17	—087	....	49 1·05
February 9.....			23·53	—073	....	56 ·89
March 1.....			23·80	—053	....	64 ·65
" 21.....			24·21	—053	....	73 ·41
April 10.....			24·50	—013	....	81 ·16
" 30.....			24·82	—007	....	88 ·08
May 20.....			24·82	—000	....	90 ·00
June 9.....			25·22	—007	....	91 ·08
" 29.....			25·35	—007	....	86 ·08
July 19.....			25·32	—020	....	80 ·24
August 8...			25·19	—040	....	71 ·49
" 28.....			25·07	—060	....	61 ·73
September 17.....			24·81	—080	....	51 ·97
October 7.....			24·68	—100	....	40 1·22
" 27.....			24·48	—113	....	31 1·38
November 16.....			24·43	—133	....	24 1·62
December 6.....			24·48	—140	....	20 1·70
" 26.....			24·59	—140	....	19 —1·70

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28									
29									
30									
31					45	—023	+	0·00 +	0 —242
32					46	—024		9·40	101 ·248
33					47	—024		19·13	207 ·255
34					48	—025		29·27	319 ·263
35					49	—026		39·80	437 ·268
36		Invisible			50	—026		50·73	562 ·275
37					51	—027		62·13	694 ·282
38					52	—027		74·07	834 ·288
39					53	—028		86·53	983 ·295
40					54	—028		99·53	1140 ·302
41					55	—029		113·27	1307 ·308
42					56	—029	+	127·67 +	1485 —315
43									
44									

Polaris Z. Dist. = 45° 39'.

1889.		β DRACONIS.					
Z.		S. T.			Az. E.		
7° 23' N.		17 ^h 26 ^m			1° 34'		
		<i>t.</i>	<i>s.</i>	<i>t'</i>	<i>a.</i>	<i>"</i>	<i>a.</i>
January 0.....		+060	32·99	-093	+48	56	-1·15
" 20.....		080	33 40	087	48	59	1·06
February 9.....		047	34 00	073	37	65	0·90
March 1.....		033	34 73	060	27	74	0·74
" 21.....		027	35 35	033	21	82	0·41
April 10.....		013	36 05	060	11	91	0·25
" 30.....		000	36 17	013	00	98	0·16
May 20.....		000	36 97	007	00	101	0·08
June 9.....		000	37 22	000	00	101	0·00
" 29.....		000	37 31	013	00	98	0·16
July 19.....		013	37 09	020	11	92	0·25
August 8.....		027	36 39	040	21	83	0·49
" 28.....		040	36 26	053	32	73	0·65
September 17.....		053	35 77	080	43	62	0·98
October 7.....		067	35 21	100	53	52	1·23
" 27.....		080	34 82	127	64	42	1·55
November 16.....		100	34 48	133	80	35	1·64
December 6.....		100	34 46	147	80	30	1·80
" 26.....		+100	34 66	-147	+80	30	-1·80

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+008	<i>s.</i> +126·73	<i>"</i> -1144	-183					
29	008	120·67	1100	-185					
30	007	114·40	1054	-188					
31	007	108·08	1006	-190					
32	007	101·53	955	-193	45	+003	<i>s.</i> + 0·00	<i>"</i> + 0	-225
33	007	94·87	901	-195	46	003	9·60	103	-231
34	006	88·13	844	-198	47	002	19·60	211	-237
35	006	81·13	785	-200	48	002	29·93	326	-242
36	006	74·00	723	-203	49	001	40·73	447	-248
37	006	66·73	658	-205	50	001	51·93	575	-254
38	005	59·20	590	-208	51	000	63·60	710	-260
39	005	51·47	517	-210	52	+000	75·80	853	-266
40	005	43·53	441	-213	53	000	88·53	1005	-272
41	004	35·40	361	-215	54	001	101·87	1166	-277
42	004	26·97	278	-218	55	001	115·93	1337	-283
43	004	18·28	190	-220	56	001	+130·67	+1519	-289
44	+004	+ 9·21	- 98	-223					

Polaris Z. Dist. = 45° 36'.

1889.		<i>a</i> OPHIUCHI.					
Z.		S. T.			Az. E.		
32° 22' S.		17 ^h 33 ^m			1° 35'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a</i>	<i>s</i>	<i>a'</i>
January 0.....		+·073	16·24	—·093	+·69	85	—1·08
" 20.....		·067	16·80	·093	·63	88	1·08
February 9.....		·053	17·58	·073	·50	95	·85
March 1.....		·040	18·50	·060	·38	103	·70
" 21.....		·033	18·41	·033	·31	112	·39
April 10.....		·020	20·24	·020	·19	120	·23
" 30.....		·007	20·99	·007	·06	127	·08
May 20.....		·007	21·47	·000	·06	130	·00
June 9.....		·000	21·83	·000	·00	131	·00
" 29.....		·013	21·83	·007	·13	128	·08
July 19.....		·020	21·56	·020	·19	122	·23
August 8.....		·033	21·13	·033	·31	113	·39
" 28.....		·047	20·45	·053	·44	104	·62
September 17.....		·053	19·77	·080	·50	94	·93
October 7.....		·073	19·00	·100	·69	82	1·16
" 27.....		·087	18·31	·120	·81	72	1·39
November 16.....		·093	17·76	·133	·88	65	1·55
December 6.....		·107	17·72	·140	1·00	60	1·62
" 26.....		+·107	17·55	—·147	+1·00	58	—1·81

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>		°		<i>s</i>	<i>"</i>	
28	—·003	129·80	1162	—·174					
29	·003	122·53	1118	·177					
30	·003	116·20	1070	·179					
31	·004	109·73	1021	·182	45	—·008	+ 0·00	+ 0	—·217
32	·004	103·13	969	·184	46	·009	9·73	104	·223
33	·004	96·40	915	·187	47	·009	19·87	215	·228
34	·005	89·53	858	·189	48	·010	30·40	331	·234
35	·005	82·47	798	·192	49	·010	41·33	454	·240
36	·005	74·20	735	·194	50	·010	52·73	584	·246
37	·006	67·80	689	·197	51	·011	64·53	721	·252
38	·006	60·13	599	·199	52	·011	76·93	866	·257
39	·006	52·33	526	·202	53	·012	89·93	1020	·263
40	·007	44·27	449	·204	54	·012	103·46	1184	·269
41	·007	35·93	368	·207	55	·013	117·73	1358	·275
42	·007	27·40	283	·209	56	—·013	+ 132·66	+ 1543	—·281
43	·008	18·60	193	·212					
44	—·008	9·27	99	—·214					

Polaris Z. Dist. = 45° 34'.

1889.

 γ DRACONIS.

Z.	S. T.			Az. E.		
	17 ^h 52 ^m			1° 39'.		
6° 30' N.	<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>t.</i>	<i>s.</i>	<i>a'.</i>
January 0.....	+·073	46·14	—·087	+·69	77	—1·06
" 20.....	—·067	46·53	—·087	+·63	79	1·06
February 9.....	—·053	47·06	—·073	+·50	85	·90
March 1.....	—·047	47·74	—·053	+·44	93	·65
" 21.....	—·033	48·41	—·040	+·31	101	·49
April 10.....	—·020	49·13	—·020	+·19	111	·25
" 30.....	—·013	49·67	—·007	+·13	118	·08
May 20.....	—·007	50·20	—·007	+·06	122	·08
June 9.....	—·000	50·47	—·000	+·00	123	·00
" 29.....	—·007	50·56	—·007	+·06	120	·08
July 19.....	—·013	50·42	—·013	+·13	115	·16
August 8.....	—·020	50·18	—·033	+·19	107	·41
" 28.....	—·040	49·70	—·053	+·33	98	·65
September 17.....	—·053	49·17	—·067	+·50	87	·82
October 7.....	—·060	48·68	—·093	+·65	76	1·15
" 27.....	—·080	48·19	—·113	+·75	66	1·39
November 16.....	—·063	47·80	—·133	+·88	58	1·64
December 6.....	—·100	47·71	—·133	+·94	52	1·64
" 26.....	+·107	47·77	—·147	+1·00	50	—1·80

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+·006	133·86	1208	+·141					
29	—·006	127·40	1162	·143					
30	—·006	120·86	1113	·146					
31	—·006	114·13	1062	·148	45	+·002	0·00	0	+·183
32	—·005	107·26	1008	·151	46	—·001	10·13	108	·188
33	—·005	100·26	952	·153	47	—·001	20·67	223	·192
34	—·005	93·06	893	·156	48	—·001	31·60	344	·196
35	—·004	85·73	830	·158	49	—·000	43·00	472	·200
36	—·004	78·20	764	·161	50	—·000	54·80	607	·204
37	—·004	70·47	695	·163	51	+·000	67·13	749	·208
38	—·004	62·53	623	·166	52	—·000	80·00	901	·213
39	—·003	54·40	547	·168	53	—·000	93·47	1061	·217
40	—·003	46·00	467	·171	54	—·001	107·60	1231	·221
41	—·003	37·40	382	·173	55	—·001	122·40	1412	·225
42	—·002	28·47	294	·176	56	—·001	137·93	1604	+·229
43	—·002	19·33	201	·178					
44	+·002	9·80	103	+·181					

Polaris Z. Dist. = 45° 28'.

1889.	β AURIGÆ, S.P.					
Z.	S. T.			Az. E.		
90° 4' N.	18 ^h 0 ^m			1° 41'.		
	<i>l.</i>	<i>s.</i>	<i>l'</i>	<i>a.</i>	<i>"</i>	<i>a'</i>
January 0.....		58.52	—087		42	—99
" 20.....		58.55	—087		43	—99
February 9.....		58.99	—073		49	—84
March 1.....		59.32	—047		57	—61
" 21.....		59.62	—040		66	—38
April 10.....		59.94	—027		74	—23
" 30.....		60.32	—007		82	—08
May 20.....		60.44	—000		86	—00
June 9.....		60.79	—000		88	—00
" 29.....		60.85	—000		85	—00
July 19.....		60.88	—007		80	—15
August 8.....		60.81	—027		73	—31
" 28.....		60.69	—040		63	—53
September 17.....		60.49	—067		53	—76
October 7.....		60.25	—087		42	—99
" 27.....		60.09	—113		32	—130
November 16.....		60.00	—120		23	—137
December 6.....		60.01	—133		17	—152
" 26.....		60.09	—140		15	—160

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28									
29									
30									
31					45	—013	0.00	0	—175
32					46	—014	10.27	110	—178
33		Invisible			47	—014	20.93	226	—182
34					48	—014	32.07	318	—185
35					49	—014	43.53	478	—188
36					50	—015	55.53	615	—192
37					51	—015	68.07	760	—195
38					52	—015	81.13	913	—198
39					53	—016	94.80	1075	—203
40					54	—016	109.07	1218	—205
41					55	—016	124.07	1431	—208
42					56	—016	139.87	1626	—212
43									
44									

Polaris Z. Dist. = 45° 26'.

1889.		λ SAGITTARII.					
Z.		S. T.			Az. E.		
70° 29' S.		18 ^h 28 ^m			1° 45'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		+·067	25·26	—·093	+·56	31	—1·08
" 20.....		·060	25·60	·093	·51	31	1·08
February 9.....		·053	26·50	·080	·45	36	·98
March 1.....		·047	27·65	·067	·39	43	·77
" 21.....		·023	28·90	·047	·28	52	·54
April 10.....		·027	30·15	·027	·23	60	·31
" 30.....		·013	31·30	·013	·11	68	·15
May 20.....		·007	32·12	·007	·06	73	·08
June 9.....		·000	32·83	·000	·00	76	·00
" 29.....		·007	33·02	·000	·06	75	·00
July 19.....		·007	32·96	·013	·06	71	·15
August 8.....		·013	32·44	·027	·11	64	·31
" 28.....		·033	31·55	·040	·28	55	·46
September 17.....		·047	30·46	·060	·39	45	·70
October 7.....		·060	29·34	·087	·51	34	1·00
" 27.....		·073	28·29	·107	·62	23	1·24
November 16.....		·087	27·43	·127	·73	14	1·47
December 6.....		·100	26·97	·140	·84	7	1·62
" 26.....		+·107	26·95	—·147	+·90	3	—1·70

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	·006	140·80	1270	·077					
29	·006	134·00	1222	·079					
30	·006	127·07	1170	·082					
31	·006	120·00	1117	·084	45	·008	+ 0·00	+ 0	·117
32	·006	112·73	1060	·087	46	·008	10·67	114	·119
33	·007	105·40	1001	·089	47	·008	21·80	235	·122
34	·007	97·87	938	·092	48	·009	33·27	362	·124
35	·007	90·13	872	·094	49	·009	45·20	496	·127
36	·007	82·20	803	·097	50	·009	57·80	638	·129
37	·007	74·07	731	·099	51	·010	70·80	788	·132
38	·007	65·78	653	·102	52	·010	84·33	947	·134
39	·007	57·20	575	·104	53	·010	98·47	1116	·137
40	·007	48·33	491	·107	54	·011	11·333	1295	·139
41	·007	39·27	402	·109	55	·011	128·87	1485	·142
42	·008	29·93	309	·112	56	·011	+ 145·27	+ 1687	·144
43	·008	20·27	211	·114					
44	·008	10·33	108	·117					

Polaris Z. Dist. = 45° 17'.

1889.	<i>a</i> LYRÆ (<i>Vega</i>).					
Z.	S. T.			Az. E.		
6° 19' S.	18 ^h 34 ^m			1° 45'.		
	<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a</i>	<i>a'</i>	<i>a''</i>
January 0.....	+·067	8·36	—·093	+·63	67	—1·32
" 20.....	·067	8·65	·093	·63	68	1·02
February 9.....	·060	9·16	·080	·56	72	·87
March 1.....	·053	9·82	·067	·50	79	·73
" 21.....	·040	10·54	·047	·38	87	·51
April 10.....	·027	11·27	·033	·25	95	·36
" 30.....	·013	12·04	·018	·13	104	·15
May 20.....	·007	12·58	·007	·06	109	·07
June 9.....	·000	13·04	·000	·00	112	·00
" 29.....	·000	13·20	·000	·00	111	·00
July 19.....	·013	13·15	·007	·13	107	·07
August 8.....	·020	12·91	·020	·19	100	·22
" 28.....	·023	12·43	·040	·31	92	·44
September 17.....	·047	11·89	·060	·44	81	·65
October 7.....	·067	11·17	·080	·63	70	·87
" 27.....	·073	10·69	·107	·69	60	1·16
November 16.....	·093	10·26	·120	·88	51	1·31
December 6.....	·100	9·99	·133	·94	44	1·45
" 26.....	+·107	10·01	—·147	+1·00	29	—1·60

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>s.</i>	<i>"</i>				<i>s</i>	<i>"</i>	
28	+·002	141·60	1277	·086					
29	·002	134·80	1229	·087					
30	·002	127·80	1177	·088					
31	·001	120·67	1123	·088	45	—·001	+ 0·00	+ 0	—100
32	·001	113·47	1066	·089	46	·001	10·73	115	·103
33	·001	106·00	1006	·090	47	·002	21·87	236	·105
34	·001	98·40	943	·091	48	·002	33·40	364	·108
35	·001	90·67	877	·092	49	·002	45·47	499	·110
36	·001	82·73	808	·093	50	·002	57·93	642	·113
37	·000	74·53	735	·093	51	·002	71·00	793	·115
38	+·000	66·13	659	·094	52	·003	84·60	953	·118
39	—·000	57·53	578	·095	53	·003	98·87	1122	·120
40	·000	48·67	494	·096	54	·003	113·60	1302	·123
41	·000	39·53	404	·097	55	·004	129·47	1493	·125
42	·001	30·13	311	·098	56	—·004	+ 145·93	+ 1697	—128
43	·001	20·40	213	·098					
44	—·001	—10·40	—109	·099					

Polaris Z. Dist. = 45° 15'.

1889.		σ SAGITTARII.					
Z.		S. T.			Az. E.		
71° 26' S.		18 ^h 55 ^m			1° 47'		
		<i>h.</i>	<i>s.</i>	<i>h.</i>	<i>a.</i>	<i>"</i>	<i>a'</i>
January 0		+080	56.98	—093	+60	50	—1.02
" 20		067	57.12	093	67	50	1.02
February 9		053	58.00	087	53	53	.95
March 1		047	58.97	067	47	59	.73
" 21		040	60.20	053	40	68	.58
April 10		027	61.46	033	27	76	.36
" 30		013	62.70	013	13	85	.15
May 20		007	63.57	007	07	90	.07
June 9		000	64.48	000	00	94	.00
" 29		000	64.85	000	00	94	.00
July 19		000	64.85	007	00	91	.07
August 8		013	64.38	013	13	85	.15
" 28		020	63.68	040	20	78	.44
September 17		033	62.61	060	33	67	.65
October 7		053	61.53	080	53	56	.87
" 27		067	60.38	100	67	45	1.09
November 16		080	59.40	120	80	35	1.31
December 6		093	58.85	133	93	27	1.45
" 26		+100	58.57	—147	+100	22	—1.60

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	003	143.87	1298	044					
29	003	136.93	1249	045					
30	004	129.80	1196	046					
31	004	122.60	1141	047	45	004	0.00	0	058
32	004	115.27	1083	048	46	005	10.87	117	060
33	004	107.67	1022	048	47	005	22.20	240	062
34	004	100.00	958	049	48	005	33.93	370	063
35	004	92.07	891	050	49	005	46.20	507	065
36	004	84.00	821	051	50	005	58.87	652	067
37	004	75.73	747	052	51	005	72.13	805	068
38	004	67.20	669	053	52	005	86.00	968	070
39	004	58.47	587	053	53	005	100.47	1140	072
40	004	49.47	501	054	54	005	115.60	1323	073
41	004	40.20	410	055	55	005	131.53	1517	075
42	004	30.60	316	056	56	006	147.73	1724	077
43	004	20.73	216	057					
45	004	10.53	111	058					

Polaris Z. Dist. = 45° 8'.

1889.

♂ DRACONIS.

Z.	S. T.			Az. E.		
22° 28' N.	19h. 5 ^m			1° 47'.		
	<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....	+·067	16·09	—·087	+·67	76	—·95
" 20.....	·067	16·43	·093	·67	75	1·02
February 9.....	·060	16·67	·087	·60	79	·95
March 1.....	·053	17·18	·073	·53	84	·80
" 21.....	·040	17·75	·060	·40	93	·65
April 10.....	·027	18·41	·040	·27	101	·43
" 30.....	·013	18·92	·020	·13	110	·21
May 20.....	·013	19·56	·013	·13	116	·15
June 9.....	·000	19·87	·000	·00	120	·00
" 29.....	·000	20·17	·000	·00	120	·00
July 19.....	·007	20·18	·007	·07	117	·07
August 8.....	·013	20·10	·020	·13	112	·22
" 28.....	·020	19·86	·033	·20	104	·36
September 17.....	·040	19·48	·053	·40	94	·58
October 7.....	·053	18·92	·073	·53	83	·80
" 27.....	·067	18·52	·000	·67	72	1·09
November 16.....	·087	18·04	·013	·87	62	1·24
December 6.....	·093	17·88	·133	·93	54	1·45
" 26.....	+·100	17·81	—·147	+1·00	46	—1·60

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>						
28	+·003	144·40	1303	—·027					
29	·003	137·40	1254	·028					
30	·003	130·33	1201	·029					
31	·003	123·07	1146	·030	45	+·003	+ 0·00	+ 0	—·042
22	·003	115·67	1087	·031	46	·003	10·93	117	·045
33	·003	108·13	1026	·032	47	·003	22·33	241	·048
34	·003	100·33	962	·033	48	·002	34·13	371	·051
35	·003	92·47	895	·033	49	·002	46·40	509	·054
36	·003	84·33	824	·034	50	·002	59·14	654	·057
37	·003	76·00	750	·035	51	·002	72·47	808	·060
38	·003	67·47	672	·036	52	·002	86·33	972	·063
39	·003	58·67	590	·037	53	·002	100·87	1144	·066
40	·003	49·60	504	·038	54	·002	116·07	1328	·069
41	·003	40·33	412	·038	55	·002	132·07	1523	·072
42	·003	30·73	317	·039	56	+·002	+ 148·87	+ 1730	—·075
43	·003	20·80	217	·040					
44	+·003	10·60	111	—·041					

Polaris Z. Dist. = 45° 4'.

1889.	ε DRACONIS.					
Z.	S. T.			Az. E.		
24° 59' N.	19 ^h 39 ^m			1° 47'.		
	<i>l.</i>	<i>s.</i>	<i>l'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....	+·060	33·87	—·087	+·58	81	—1·05
" 20.....	·060	34·11	·093	·58	79	1·13
February 9.....	·060	34·25	·087	·58	80	1·05
March 1.....	·053	34·69	·073	·51	85	·89
" 21.....	·040	35·26	·067	·39	94	·81
April 10.....	·027	35·88	·047	·26	101	·57
" 30.....	·020	36·40	·027	·19	110	·32
May 20.....	·007	37·19	·020	·06	117	·24
June 9.....	·000	37·44	·000	·00	121	·00
" 29.....	·000	37·79	·000	·00	121	·00
July 19.....	·000	37·91	·000	·00	122	·00
August 8.....	·007	37·86	·014	·06	117	·16
" 28.....	·020	37·67	·027	·19	110	·32
September 17.....	·027	37·29	·047	·26	101	·57
October 7.....	·040	36·90	·067	·39	91	·81
" 27.....	·060	36·41	·087	·58	80	1·05
November 16.....	·073	36·00	·113	·71	70	1·38
December 6.....	·080	35·74	·127	·77	61	1·54
" 26.....	+·093	35·62	—140	+·90	55	—1·70

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	·003	144·47	1303	+·036					
29	·003	137·47	1254	·037					
30	·003	130·40	1201	·038					
31	·003	123·13	1146	·038	45	—·002	+ 0·00	+ 0	+·050
32	·003	115·73	1088	·039	46	·002	11·00	117	·051
33	·003	108·13	1027	·040	47	·002	22·33	241	·052
34	·003	100·46	963	·041	48	·002	34·13	372	·052
35	·003	92·47	895	·042	49	·002	46·40	500	·053
36	·003	84·33	824	·043	50	·002	59·20	655	·054
37	·003	76·00	750	·043	51	·002	72·33	809	·055
38	·003	67·47	672	·044	52	·002	86·40	972	·056
39	·003	58·67	590	·045	53	·002	100·93	1145	·057
40	·002	49·60	504	·046	54	·002	116·20	1329	·057
41	·002	40·33	412	·047	55	·002	132·13	1524	·058
42	·002	30·73	317	·048	56	—·002	+ 148·93	+ 1732	+·059
43	·002	20·80	217	·048					
44	—·002	—10·52	—111	+·059					

Polaris Z. Dist. = 44° 53'.

1889.

 γ AQUILÆ.

Z.	S. T.			Az. E.		
34° 39' S.	19 ^h 45 ^m			1° 47'		
	<i>t.</i>	<i>n.</i>	<i>t.</i>	<i>a.</i>	<i>n.</i>	<i>a.</i>
January 0.....	+·067	6·81	—·097	+·67	68	—·93
" 20.....	·073	6·78	·093	·70	65	1·00
February 9.....	·060	7·29	·087	·60	67	1·00
March 1.....	·053	7·84	·080	·53	73	·86
" 21.....	·047	8·67	·067	·47	79	·71
April 10.....	·033	9·50	·047	·33	88	·50
" 30.....	·027	10·42	·027	·27	96	·29
May 20.....	·013	11·19	·020	·13	103	·21
June 9.....	·007	11·95	·007	·07	108	·07
" 29.....	·000	12·41	·000	·00	110	·00
July 19.....	·007	12·57	·000	·07	109	·00
August 8.....	·013	12·49	·013	·13	104	·14
" 28.....	·013	12·11	·027	·13	98	·29
September 17.....	·033	11·52	·040	·33	89	·43
October 7.....	·047	10·79	·067	·47	79	·73
" 27.....	·067	9·98	·180	·67	68	·86
November 16.....	·073	9·35	·107	·73	57	1·14
December 6.....	·087	8·84	·127	·87	49	1·36
" 26.....	+·100	8·68	—·140	+1·00	42	—1·50

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>n.</i>	<i>n.</i>				<i>n.</i>	<i>n.</i>	
28	+·001	144·20	1301	+·035					
29	·001	137·20	1252	·035					
30	·001	130·13	1199	·036					
31	·001	122·87	1144	·036	45	+·002	0·00	0	+·042
32	·001	115·47	1086	·036	46	·002	10·93	117	·043
33	·001	107·93	1025	·037	47	·002	22·27	240	·045
34	·001	100·20	961	·037	48	·002	34·07	370	·046
35	·001	92·33	894	·038	49	·002	46·27	508	·048
36	·001	84·20	823	·038	50	·002	59·07	653	·050
37	·001	75·87	749	·038	51	·002	72·33	807	·051
38	·001	67·33	671	·039	52	·002	86·20	970	·053
39	·001	58·60	589	·039	53	·002	100·73	1143	·055
40	·001	49·53	503	·040	54	·002	115·93	1326	·056
41	·001	40·27	412	·040	55	·002	131·87	1520	·058
42	·002	30·67	317	·040	56	+·002	148·60	1728	+·059
43	·002	20·80	217	·041					
44	+·002	—10·60	—111	+·041					

Polaris Z. Dist. = 44° 51'.

1889.		<i>α</i> AQUILÆ (<i>Altair</i>).					
Z.		S. T.			Az. E.		
22° 28' S.		19 ^h 49 ^m			1° 47'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>"</i>	<i>α'.</i>
January 0.....		+·060	39·11	—·087	+·58	54	—·93
" 20.....		·067	39·08	·093	·64	52	1·00
February 9.....		·060	39·52	·093	·58	53	1·00
March 1.....		·053	40·06	·080	·51	57	·86
" 21.....		·047	40·90	·067	·45	65	·71
April 10.....		·038	41·79	·047	·32	73	·50
" 30.....		·027	42·71	·027	·26	82	·29
May 20.....		·018	43·48	·020	·13	89	·21
June 9.....		·007	44·25	·007	·06	94	·07
" 29.....		·007	44·72	·000	·06	96	·00
July 19.....		·000	44·96	·000	·00	95	·00
August 8.....		·007	44·83	·013	·06	91	·14
" 28.....		·020	44·46	·027	·19	85	·29
September 17.....		·028	43·89	·047	·32	76	·50
October 7.....		·047	43·16	·067	·45	66	·71
" 27.....		·060	42·37	·087	·58	55	·93
November 16.....		·078	41·67	·107	·71	44	1·14
December 6.....		·093	41·10	·120	·90	35	1·29
" 26.....		+·093	40·87	—·140	+·90	28	—1·50

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	+·001	143·87	1298	+·036					
29	·001	136·93	1249	·037					
30	·001	129·87	1196	·038					
31	·001	122·67	1141	·038	45	+·002	+ 0·00	+ 0	+·050
22	·001	115·27	1083	·039	46	·002	10·87	117	·052
33	·001	107·73	1022	·040	47	·002	22·20	240	·053
34	·001	100·00	958	·041	48	·002	33·93	370	·055
35	·001	92·13	891	·042	49	·002	46·20	507	·057
36	·001	84·07	821	·043	50	·002	58·87	652	·058
37	·001	75·73	747	·043	51	·002	72·13	806	·060
38	·001	67·20	669	·044	52	·002	86·00	968	·062
39	·001	58·47	587	·045	53	·003	100·47	1140	·063
40	·001	49·47	501	·046	54	·003	115·60	1323	·065
41	·001	40·20	410	·047	55	·003	131·53	1517	·067
42	·001	30·60	316	·048	56	+·003	+ 148·27	+ 1724	+·068
43	·002	20·73	216	·048					
44	+·002	10·60	111	+·049					

Polaris Z. Dist. = 44° 49'.

1889.		α^3 CAPRICORNI.					
Z.		S. T.			Az. E.		
55° 53' S.		20 ^h 17 ^m			1° 45'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0.....		+·067	58·26	—·080	+·60	32	—·88
" 20.....		·067	58·13	·093	·60	29	1·03
February 9.....		·067	58·49	·073	·60	29	·96
March 1.....		·067	59·09	·080	·60	32	·88
" 21.....		·053	59·98	·067	·48	39	·74
April 10.....		·040	61·00	·053	·36	47	·59
" 30.....		·027	62·08	·033	·24	56	·37
May 20.....		·020	63·02	·020	·18	63	·22
June 9.....		·013	64·06	·007	·12	69	·07
" 29.....		·007	64·66	·007	·06	72	·07
July 19.....		·000	65·05	·000	·00	72	·00
August 8.....		·007	65·00	·007	·06	69	·07
" 28.....		·013	64·70	·020	·12	64	·22
September 17.....		·027	63·98	·033	·24	56	·37
October 7.....		·040	63·21	·060	·36	46	·66
" 27.....		·060	62·23	·073	·54	36	·81
November 16.....		·073	60·28	·093	·66	25	1·03
December 6.....		·087	60·63	·113	·78	16	1·25
" 26.....		+·100	60·13	—·127	+·90	8	—·40

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	+·004	140·73	1269	+·094					
29	·004	133·93	1221	·095					
30	·001	127·00	1169	·096					
31	·004	119·93	1116	·097	45	+·006	+ 0·00	+ 0	+·108
32	·005	112·73	1059	·098	46	·006	10·67	114	·112
33	·005	105·40	1000	·098	47	·007	21·73	235	·116
34	·005	97·80	937	·099	48	·007	33·20	362	·118
35	·005	90·13	872	·100	49	·007	45·13	496	·122
36	·005	82·20	803	·101	50	·007	57·60	638	·125
37	·005	74·07	730	·102	51	·007	70·53	788	·128
38	·005	65·73	654	·103	52	·007	84·07	945	·132
39	·005	57·20	573	·103	53	·008	98·27	1115	·135
40	·006	48·40	490	·104	54	·008	113·07	1294	·138
41	·006	39·33	401	·105	55	·008	128·67	1484	·142
42	·006	29·93	309	·106	56	+·009	+ 145·00	+ 1687	+·145
43	·006	20·33	211	·107					
44	+·006	10·33	108	+·108					

Polaris Z. Dist. = 44° 40'.

1889.		a CYGNI.					
Z.		S. T.			Az. E.		
0° 7' S.		20 ^h 37 ^m			1° 42'.		
		<i>l.</i>	<i>s.</i>	<i>l'.</i>	<i>a</i>	<i>"</i>	<i>a'</i>
January 0.....		+·053	37·88	—·073	+·49	56	—·87
" 20.....		·060	37·89	·087	·55	52	1·08
February 9.....		·067	38·03	·087	·62	51	1·08
March 1.....		·060	38·38	·080	·55	54	·95
" 21.....		·053	38·89	·067	·49	60	·79
April 10.....		·040	39·54	·053	·37	67	·63
" 30.....		·027	40·27	·033	·25	77	·39
May 20.....		·020	41·06	·027	·18	84	·32
June 9.....		·007	41·65	·007	·06	91	·08
" 29.....		·000	42·16	·000	·00	94	·00
July 19.....		·000	42·48	·000	·00	95	·00
August 8.....		·007	42·51	·000	·06	93	·00
" 28.....		·007	42·38	·013	·06	89	·16
September 17.....		·020	42·05	·027	·18	81	·32
October 7.....		·033	41·59	·040	·31	72	·47
" 27.....		·047	41·06	·067	·43	62	·79
November 16.....		·060	40·53	·287	·55	51	1·03
December 6.....		·073	40·10	·107	·68	42	1·26
" 26.....		+·087	39·80	—·127	+·80	33	—1·50

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
		<i>N.</i>	<i>"</i>						
28	—·003	137·27	1238	+·121					
29	·003	130·67	1191	·123					
30	·003	123·87	1141	·125					
31	·003	117·40	1089	·127	45	+·001	+·0·00	+·0	+·150
32	·002	109·93	1033	·128	46	·001	10·40	112	·151
33	·002	102·80	975	·130	47	·001	21·20	229	·152
34	·002	95·40	914	·132	48	·001	32·10	353	·152
35	·002	87·87	850	·133	49	·001	44·07	484	·153
36	·002	80·20	783	·135	50	·001	56·20	629	·154
37	·002	72·27	712	·137	51	·001	69·10	769	·155
38	·002	64·13	638	·138	52	·001	82·30	924	·156
39	·001	55·80	560	·140	53	·001	96·10	1088	·157
40	·001	47·20	478	·141	54	·001	110·57	1263	·157
41	·001	38·33	391	·143	55	·001	125·77	1448	·158
42	·001	29·20	301	·145	56	+·001	+· 141·70	+· 1645	+·159
43	·001	19·80	206	·147					
44	—·001	—10·07	—105	+·148					

Polaris Z. Dist. = 44° 34'.

1880.		η CEPHEI.					
Z.		S. T.			Az. E.		
16° 24' N.		20 ^h 38 ^m			1° 42'.		
		<i>t.</i>	<i>s.</i>	<i>t.</i>	<i>c.</i>	<i>"</i>	<i>a.</i>
January 0	.....	+·053	56·64	—·080	·55	44	—·88
" 20	.....	·060	56·52	·093	·62	40	1·03
February 9	.....	·060	56·80	·093	·62	39	1·03
March 1	.....	·053	57·13	·087	·55	42	·96
" 21	.....	·047	57·53	·073	·48	48	·81
April 10	.....	·040	58·16	·060	·42	55	·66
" 30	.....	·020	58·42	·040	·21	64	·44
May 20	.....	·013	59·53	·027	·14	72	·29
June 9	.....	·000	60·07	·013	·00	78	·15
" 29	.....	·000	60·45	·000	·00	82	·00
July 19	.....	·000	60·81	·000	·00	83	·00
August 8	.....	·000	60·87	·007	·00	81	·07
" 28	.....	·007	60·73	·013	·07	77	·15
September 17	.....	·020	60·47	·027	·21	69	·29
October 7	.....	·020	60·05	·053	·21	60	·59
" 27	.....	·040	59·60	·073	·42	50	·81
November 16	.....	·060	59·13	·093	·62	39	·96
December 6	.....	·073	58·75	·107	·76	30	1·18
" 26	.....	+·093	58·51	—·127	+·90	21	—1·40

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	—010	137·00	1236	+·130					
29	·009	130·33	1188	·132					
30	·009	123·60	1136	·133					
31	·009	116·73	1086	·135	45	—·006	+ 0·00	+ 0	+·158
32	·009	109·73	1031	·137	46	·006	10·40	111	·161
33	·009	102·53	973	·138	47	·006	21·20	229	·164
34	·008	95·20	912	·140	48	·006	32·33	352	·167
35	·008	87·67	849	·142	49	·006	44·00	483	·170
36	·008	80·00	781	·143	50	·005	56·07	621	·173
37	·008	72·07	710	·145	51	·005	68·73	767	·176
38	·008	64·00	637	·147	52	·005	81·87	922	·179
39	·007	55·67	559	·148	53	·005	95·67	1086	·182
40	·007	47·07	477	·150	54	·004	110·13	1260	·185
41	·007	38·27	391	·152	55	·004	125·27	1445	·188
42	·007	29·13	301	·153	56	—·004	+ 141·13	+ 1642	+·191
43	·006	19·73	206	·155					
44	—006	10·07	105	+·157					

Polaris Z. Dist. = 44° 33'.

1889.	URSÆ MAJORIS, S.P.					
Z.	S. T.			Az. E.		
86° 31' N.	21 ^b 1 ^m			1° 38'.		
	<i>t.</i>	<i>s.</i>	<i>t.</i>	<i>a.</i>	<i>"</i>	<i>a.</i>
January 0.....	+·047	31·36	—·080	+·49	44	—·88
" 20.....	·080	31·23	·093	·63	39	1·03
February 9.....	·080	31·48	·093	·63	37	1·03
March 1.....	·060	31·63	·093	·63	39	1·03
" 21.....	·047	31·88	·080	·49	44	·88
April 10.....	·047	32·17	·067	·49	51	·74
" 30.....	·033	32·56	·047	·35	60	·52
May 20.....	·020	32·86	·033	·21	69	·37
June 9.....	·007	33·35	·020	·07	75	·22
" 29.....	·000	33·67	·007	·00	80	·07
July 19.....	·000	33·83	·000	·00	82	·00
August 8.....	·000	34·01	·007	·00	81	·07
" 28.....	·007	34·01	·013	·07	77	·14
September 17.....	·013	33·97	·027	·14	71	·29
October 7.....	·027	33·69	·040	·28	62	·44
" 27.....	·047	33·58	·060	·49	53	·66
November 16.....	·050	33·42	·087	·56	42	·96
December 6.....	·063	33·32	·107	·70	32	1·18
" 26.....	+·080	33·25	—·127	+·84	23	—1·40

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28									
29									
30									
31					45	+·020	+·0·00	+·0	+·192
32					46	·020	10·00	105	·196
33		Invisible			47	·021	20·33	219	·200
34					48	·021	31·13	338	·204
35					49	·022	42·47	464	·208
36					50	·022	53·93	597	·213
37					51	·022	66·07	737	·217
38					52	·023	78·73	886	·221
39					53	·023	92·00	1043	·225
40					54	·024	105·87	1211	·229
41	+·018	36·73	376	+·182	55	·024	120·40	1389	·233
42	·019	28·00	289	·184	56	+·024	135·67	1598	+·248
43	·019	18·98	198	·187					
44	+·020	9·60	101	+·189					

Polaris Z. Dist. = 44° 30'

1889.		a CEPHEI.					
Z.		S. T.			Az. E.		
17° 7' N.		2 ^h 11 ^m			1° 36'.		
		<i>l.</i>	<i>n.</i>	<i>l.</i>	<i>a</i>	<i>a'</i>	
January 0	.....	+058	50·22	-073	+53	35	-79
" 20	.....	067	50·19	-087	67	29	94
February 0	.....	067	50·26	-093	67	27	101
March 1	.....	067	50·40	-087	67	26	94
" 31	.....	060	50·85	-080	60	33	87
April 10	.....	047	51·42	-067	47	40	72
" 30	.....	033	52·07	-053	33	49	51
May 20	.....	027	52·76	-033	27	57	36
June 9	.....	013	53·38	-013	13	64	14
" 29	.....	007	53·87	000	07	69	00
July 19	.....	007	54·24	000	07	71	00
August 8	.....	000	54·43	000	00	71	00
" 28	.....	013	54·35	-007	13	67	07
September 17	.....	020	54·06	-020	20	62	22
October 7	.....	033	53·80	-033	33	52	36
" 27	.....	040	53·39	-060	40	44	65
November 16	.....	060	52·92	-073	60	33	79
December 6	.....	073	52·56	-100	73	23	108
" 26	.....	+080	52·28	-120	+80	14	-130

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	-014	128·80	1162	+096	45	-010	0·00	0	+133
29	-014	122·54	1117	098	46	-009	9·73	104	138
30	-014	116·20	1070	101	47	-009	19·87	215	143
31	-013	109·74	1021	103	48	-008	30·40	331	148
32	-013	103·14	969	106	49	-008	41·33	454	153
33	-013	96·40	915	108	50	-007	52·67	583	158
34	-013	89·52	858	111	51	-007	64·53	721	163
35	-012	82·47	798	113	52	-006	76·93	866	168
36	-012	75·20	735	116	53	-006	89·86	1020	173
37	-012	67·80	668	118	54	-005	103·47	1184	178
38	-011	60·13	599	121	55	-005	117·67	1358	183
39	-011	52·33	525	123	56	-004	132·67	1543	+188
40	-011	44·27	449	126					
41	-011	36·00	367	128					
42	-010	27·40	283	131					
43	-010	18·60	194	133					
44	-010	9·17	99	+136					

Polaris Z. Dist. = 44° 23'.

1889.		β AQUARI.					
Z.		S. T.			Az. E.		
51° 4' S.		21 ^h 30 ^m			1° 31'.		
		<i>t.</i>	<i>s.</i>	<i>t.</i>	<i>a</i>	<i>a'</i>	
January 0.....		+·053	29·36	—·073	+·47	70	—·78
" 20.....		·073	28·89	·087	·64	64	·92
February 9.....		·073	28·94	·093	·64	61	·99
March 1.....		·067	29·26	·093	·58	39	·99
" 21.....		·060	29·82	·087	·52	66	·92
April 10.....		·053	30·56	·067	·47	74	·71
" 30.....		·047	31·50	·053	·41	81	·55
May 20.....		·033	32·53	·040	·29	89	·42
June 9.....		·020	33·60	·020	·17	96	·21
" 29.....		·013	34·42	·013	·12	102	·14
July 19.....		·007	35·05	·007	·06	105	·07
August 8.....		·000	35·32	·000	·00	105	·00
" 28.....		·007	35·29	·013	·06	102	·14
September 17.....		·020	34·95	·020	·17	97	·21
October 7.....		·027	34·34	·040	·23	90	·42
" 27.....		·047	33·61	·053	·41	81	·56
November 16.....		·053	32·80	·073	·47	71	·76
December 6.....		·073	32·03	·093	·64	61	1·08
" 26.....		+·080	31·49	—·113	+·70	51	—1·27

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>				<i>s</i>	<i>"</i>	
28	+·006	122·87	1109	+·170					
29	·007	116·94	1066	·183					
30	·007	110·87	1022	·187					
31	·007	104·67	974	·192	45	+·013	+0·00	+ 0	+·250
32	·008	98·40	925	·196	46	·014	9·33	100	·256
33	·008	91·93	873	·200	47	·014	19·00	205	·262
34	·009	85·40	819	·204	48	·015	29·07	316	·267
35	·009	78·60	761	·208	49	·015	39·47	433	·273
36	·010	71·73	701	·212	50	·015	50·33	577	·279
37	·010	64·67	638	·217	51	·016	61·67	688	·285
38	·010	57·33	572	·221	52	·016	73·47	827	·291
39	·011	49·87	501	·225	53	·017	85·87	974	·297
40	·011	42·20	428	·229	54	·017	98·80	1130	·302
41	·012	34·27	350	·233	55	·018	112·40	1296	·308
42	·012	26·13	270	·237	56	+·018	+127·67	+1472	+·314
43	·012	17·67	185	·242					
44	+·013	9·00	95	+·246					

Polaris Z. Dist. = 44° 18'.

1889.		a AQUARIUS.					
Z.		S. T.			Az. E.		
45° 52' S.		22 ^h 3 ^m			1° 22'.		
		<i>l.</i>	<i>n.</i>	<i>l.</i>	<i>a.</i>	<i>n.</i>	<i>a.</i>
January 0.....		+ 047	60 51	-067	+ 42	44	- 60
" 20.....		060	60 03	-087	54	33	- 78
February 9.....		067	59 95	-087	60	29	- 78
March 1.....		067	60 06	-087	60	28	- 78
" 21.....		067	60 48	-080	60	31	- 72
April 10.....		053	61 17	-073	48	37	- 66
" 30.....		040	62 09	-053	36	45	- 48
May 20.....		038	63 02	-040	30	53	- 36
June 9.....		020	64 04	-020	18	61	- 18
" 29.....		007	64 95	-013	06	67	- 12
July 19.....		000	65 62	-007	00	71	- 06
August 8.....		000	66 01	-000	00	73	- 00
" 28.....		007	66 11	-000	06	72	- 00
September 17.....		007	65 96	-013	06	68	- 12
October 7.....		020	65 48	-020	18	62	- 18
" 27.....		027	64 85	-040	24	54	- 36
November 16.....		040	64 11	-060	36	44	- 54
December 6.....		053	63 41	-080	48	34	- 72
" 26.....		+ 067	62 76	-100	+ 60	25	- 90

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>n.</i>	<i>n.</i>				<i>n.</i>	<i>n.</i>	
28	+ 008	119 27	995	+ 237					
29	008	114 93	956	241					
30	009	99 47	916	246					
31	009	93 93	873	250	45	+ 015	0 00	0	+ 308
22	009	88 33	830	254	46	015	8 53	90	314
33	010	82 53	782	258	47	015	17 20	184	320
34	010	76 60	734	262	48	016	26 27	283	326
35	011	70 60	683	267	49	016	35 60	389	332
36	011	64 40	629	271	50	017	45 23	500	338
37	011	58 00	571	275	51	017	55 47	617	344
38	012	51 47	513	279	52	018	66 13	742	350
39	012	44 80	449	283	53	018	77 20	874	356
40	013	37 87	384	287	54	018	88 80	1014	362
41	013	30 80	313	292	55	019	101 00	1163	368
42	013	23 47	242	296	56	+ 019	+ 113 80	+ 1321	+ 374
43	014	15 87	166	300					
44	+ 014	8 07	85	+ 304					

Polaris Z. Dist. = 44° 9'.

1880.		α GRUIS.					
Z.		S. T.			Az. E.		
92° 30' S.		22h 9m			1° 20'		
		<i>h.</i>	<i>m.</i>	<i>s.</i>	<i>a.</i>	<i>"</i>	<i>a'.</i>
January 0		047	10	78	+ 49	62	...
" 20		053	9	79	58	55	...
February 9		060	9	58	63	51	...
March 1		058	9	74	56	50	...
" 21		053	10	42	56	53	...
April 10		047	11	47	49	58	...
" 30		033	12	93	35	66	...
May 20		027	14	49	28	73	...
June 9		013	16	15	14	81	...
" 29		007	17	36	07	88	...
July 19		000	18	65	00	99	...
August 8		000	19	40	00	99	...
" 28		000	19	50	00	93	...
September 17		000	19	23	00	89	...
October 7		013	18	33	14	82	...
" 27		020	17	28	21	76	...
November 16		040	15	83	42	66	...
December 6		053	14	49	56	57	...
" 26		+ 060	13	23	+ 63	47	...

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+ 024	108 07	975	+ 255					
29	024	102 80	938	258					
30	025	97 47	898	262					
31	025	92 07	857	265	45				
32	025	86 47	813	268	46				
33	026	80 87	768	272	47				
34	027	75 07	720	275	48				
35	027	69 13	670	278	49				
36	028	63 07	617	282	50				
37	028	56 80	562	285	51				
38	029	50 40	503	288	52				
39	029	43 87	442	292	53				
40	029	37 07	377	295	54				
41	030	30 13	309	298	55				
42	+ 030	22 93	238	+ 302	56				
43	....	....	....	....					
44	....	....	....	....					

Polaris Z. Dist. = 44° 8'.

1889.		a PISCIS AUST. (<i>Fomalhaut</i>).					
Z.		S. T.			Az. E.		
75° 13' S.		22 ^h 56 ^m			1° 3'.		
		<i>t.</i>	<i>n.</i>	<i>t.</i>	<i>a.</i>	<i>n.</i>	<i>a'.</i>
January 0.		+040	16 74	-060	+36	76	58
" 20.		060	15 84	080	54	68	77
February 0.		067	15 46	087	60	62	84
March 1.		067	15 33	093	60	59	90
" 21.		067	15 63	093	60	61	90
April 10.		060	16 27	037	54	64	84
" 30.		053	17 33	073	48	71	71
May 20.		040	18 42	060	36	79	58
June 9.		027	19 86	047	24	87	45
" 29.		013	21 08	033	12	94	32
July 19.		007	22 17	013	06	100	13
August 8.		000	22 21	000	00	104	00
" 28.		007	23 22	000	06	103	00
September 17.		007	23 26	000	06	104	00
October 7.		007	22 23	020	18	100	19
" 27.		020	22 25	027	48	94	26
November 16.		033	21 31	040	30	85	30
December 6.		040	20 42	060	36	76	58
" 26.		+060	19 42	-080	+54	67	-77

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+020	85 89	774	+290					
29	020	81 67	744	295					
30	021	77 40	713	300					
31	021	73 13	681	305	45	+028	0 00	0	+375
32	022	68 73	646	314	46	030	6 47	70	384
33	022	64 20	610	318	47	030	13 20	143	393
34	023	59 60	571	323	48	031	20 20	220	403
35	023	54 93	531	327	49	031	27 53	302	412
36	024	50 13	489	331	50	032	35 07	389	421
37	024	45 13	446	335	51	032	43 00	480	430
38	025	40 07	399	340	52	032	51 20	577	439
39	025	34 27	351	343	53	034	59 27	680	448
40	026	29 47	309	350	54	035	68 27	789	458
41	026	24 00	245	352	55	036	78 40	904	467
42	027	18 27	188	360	56	+036	88 33	+1027	+476
43	027	12 40	129	365					
44	+028	6 33	66	+370					

Polaris Z. Dist. = 43° 57'.

1880.		α PEGASI.					
Z.		S. T.			Az. E.		
30° 23' S.		28 ^h 1 ^m			1° 1'		
		<i>l.</i>	<i>a.</i>	<i>l'</i>	<i>a.</i>	<i>"</i>	<i>a'</i>
January 0.....		+047	22·62	-060	+88	76	-.71
" 20.....		-058	22 19	-080	'44	69	.94
February 9.....		-067	21·90	-087	'55	69	1.02
March 1.....		-067	21·87	-098	'55	59	1.10
" 21.....		-078	21·97	-098	'60	60	1.10
April 10.....		-067	22·49	-087	'55	68	1.02
" 30.....		-058	23·23	-078	'44	70	.86
May 20.....		-040	24·00	-060	'38	78	.71
June 9.....		-038	24·96	-040	'27	86	.47
" 29.....		-020	25·84	-027	'16	94	.31
July 19.....		-013	26·58	-018	'11	100	.16
August 8.....		-007	27·13	-007	'05	104	.09
" 28.....		'000	27·46	'000	'00	105	.00
September 17.....		-007	27·35	'000	'05	105	.00
October 7.....		-018	27·31	-007	'11	100	.09
" 27.....		-020	26·94	-020	'16	95	.24
November 16.....		-038	26·37	-040	'27	86	.47
December 6.....		-040	25·86	-060	'38	77	.71
" 26.....		+058	25·29	-080	+44	67	-0.95

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
°		<i>s.</i>	<i>"</i>				<i>s.</i>	<i>"</i>	
28	+004	83·13	750	+·307					
29	'004	79·13	720	'812					
30	'005	75·07	691	'817					
31	'006	70·87	658	'822	45	+018	+ 0·00	+ 0	+·307
32	'006	66·60	625	'827	46	'04	6·27	68	'401
33	'007	62·27	589	'832	47	'015	12·80	139	'410
34	'007	57·80	553	'837	48	'018	19·60	214	'419
35	'008	53·27	515	'842	49	'018	26·67	293	'428
36	'008	48·53	474	'847	50	'017	34·00	377	'438
37	'009	43·86	430	'857	51	'018	41·67	466	'447
38	'009	38·87	386	'862	52	'019	49·67	560	'456
39	'010	33·86	338	'867	53	'020	58·07	659	'465
40	'011	28·66	289	'872	54	'020	66·80	765	'474
41	'011	23·20	236	'877	55	'021	76·00	877	'483
42	'012	17·73	182	'882	56	+02	+ 85·67	+ 996	+·498
43	'012	12·00	124	'887					
44	+013	6·13	63	+·887					

Polaris Z. Dist. = 43° 56'.

1880.		β URSÆ MAJORIS, S. P.					
Z.		S. T.			Az. E.		
78° 1' N.		23 ^h 2 ^m			1° 1'.		
		<i>l.</i>	<i>s.</i>	<i>l'.</i>	<i>a</i>	<i>"</i>	<i>a'</i>
January 0	.....	+ 040	31.88	-080	+ 86	49	- 71
" 20	.....	080	31.61	080	54	40	94
February 9	.....	067	31.67	087	60	34	109
March 1	.....	073	31.70	098	66	31	110
" 21	.....	078	31.80	098	66	32	110
April 10	.....	067	32.03	086	60	35	102
" 30	.....	058	32.45	078	48	42	86
May 20	.....	047	32.79	060	42	50	71
June 9	.....	027	33.38	040	24	59	47
" 29	.....	020	33.78	020	18	67	24
July 19	.....	007	34.24	018	06	73	16
August 8	.....	000	34.52	000	00	77	00
" 28	.....	000	34.72	000	00	79	00
September 17	.....	007	34.74	000	06	78	00
October 7	.....	018	34.73	007	12	74	08
" 27	.....	020	34.69	020	18	68	24
November 16	.....	033	34.51	040	30	59	47
December 6	.....	047	34.42	060	42	50	71
" 26	.....	+ 060	34.29	-073	+ 54	40	- 86

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+ 087	82.47	744	+ 284	45	+ 046	000	0	+ 383
29	088	78.47	716	290	46	046	6.27	67	392
30	088	74.40	686	296	47	047	12.78	138	400
31	089	70.33	654	302	48	048	19.47	212	408
32	089	66.13	621	308	49	049	26.47	291	417
33	040	61.90	586	313	50	049	33.90	374	425
34	040	57.32	550	319	51	050	41.40	463	433
35	041	52.87	511	325	52	051	49.32	555	442
36	041	48.20	471	331	53	052	57.60	654	450
37	042	43.47	428	337	54	053	66.27	759	458
38	042	38.52	384	343	55	053	75.40	810	467
39	043	33.53	337	348	56	+ 054	83.00	1000	+ 475
40	043	28.40	287	354					
41	044	23.07	236	360					
42	044	17.58	181	366					
43	045	11.93	124	372					
44	+ 045	6.07	63	+ 378					

Polaris Z. Dist. = 43° 56'.

1889.

a URSAE MAJORIS, S. P.

Z. 72° 39' N.	S. T.			Az. E.		
	23 ^h 5 ^m			1° 0'.		
	<i>l.</i>	<i>"</i>	<i>l'</i>	<i>a.</i>	<i>"</i>	<i>a'</i>
January 0.....	+ 040	11 94	-067	+ 36	45	-87
" 20.....	053	11 59	-080	48	36	104
February 9.....	080	11 63	-093	54	30	121
March 1.....	067	11 71	-100	60	27	130
" 21.....	067	11 81	-100	60	28	130
April 10.....	060	12 04	-093	54	31	121
" 30.....	047	12 50	-080	42	38	104
May 20.....	040	12 55	-060	36	46	78
June 9.....	027	13 45	-047	24	55	61
" 29.....	018	13 93	-027	12	62	35
July 19.....	018	14 28	-018	12	69	17
August 8.....	007	14 63	-000	06	73	00
" 28.....	000	14 80	-000	00	75	00
September 17.....	000	14 90	-007	00	74	09
October 7.....	007	14 81	-007	06	70	09
" 27.....	013	14 79	-013	12	64	17
November 16.....	027	14 60	-040	24	56	52
December 6.....	040	14 51	-060	36	46	78
" 26.....	+ 053	14 33	-080	+ 48	36	-104

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+ 043	81 06	732	+ 290					
29	+ 044	77 19	704	+ 295					
30	+ 044	73 19	675	+ 300					
31	+ 045	69 12	644	+ 305	45	+ 053	0 00	0	+ 375
32	+ 045	64 32	611	+ 310	46	+ 054	6 20	65	+ 383
33	+ 046	60 72	577	+ 315	47	+ 054	12 60	135	+ 390
34	+ 047	56 32	541	+ 320	48	+ 055	19 20	208	+ 398
35	+ 047	51 32	503	+ 325	49	+ 056	26 07	286	+ 405
36	+ 048	47 32	463	+ 330	50	+ 056	32 27	367	+ 413
37	+ 048	42 66	421	+ 335	51	+ 057	40 73	454	+ 420
38	+ 049	37 36	378	+ 340	52	+ 058	48 52	545	+ 428
39	+ 049	32 32	331	+ 345	53	+ 059	56 67	642	+ 435
40	+ 050	27 36	283	+ 350	54	+ 059	65 27	746	+ 443
41	+ 051	22 60	232	+ 355	55	+ 060	74 20	857	+ 450
42	+ 051	17 30	179	+ 360	56	+ 061	82 67	972	+ 458
43	+ 052	11 67	122	+ 365					
44	+ 052	5 33	63	+ 370					

Polaris Z. Dist. = 43° 56'.

1889.		γ CEPHEI.					
Z.		S. T.			Az. E.		
31° 1' N.		23 ^h 26 ^m			0° 51'		
		<i>t.</i>	<i>s.</i>	<i>t.</i>	<i>a.</i>	<i>s.</i>	<i>a.</i>
January 0.....		+040	56.25	-060	+38	53	-78
" 20.....		053	56.08	-080	51	46	1.04
February 9.....		067	55.75	-093	64	39	1.21
March 1.....		073	55.46	-100	70	35	1.30
" 21.....		078	55.32	-093	70	35	1.21
April 10.....		067	56.17	-093	64	38	1.21
" 30.....		060	56.55	-080	57	44	1.04
May 20.....		053	57.19	-067	45	52	.87
June 9.....		040	57.69	-053	38	60	.61
" 29.....		027	58.32	-033	25	68	.43
July 19.....		013	58.91	-020	13	75	.26
August 8.....		013	59.26	-007	13	80	.09
" 28.....		000	59.64	-000	00	83	.00
September 17.....		000	59.75	-107	00	83	.09
October 7.....		007	59.75	-113	06	80	.17
" 27.....		013	59.54	-020	13	75	.26
November 16.....		027	59.22	-033	25	68	.43
December 6.....		040	58.90	-047	38	59	.61
" 26.....		+053	58.68	-067	+51	49	-.87

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	083	69.40	626	+351	45	072	0.00	0	+450
29	082	66.00	602	.357	46	070	5.27	56	.467
30	081	62.60	577	.363	47	070	10.73	115	.488
31	081	59.13	550	.368	48	069	16.40	178	.500
32	080	55.53	523	.374	49	068	22.23	244	.517
33	079	51.93	493	.380	50	068	28.40	314	.533
34	079	48.20	463	.386	51	067	34.80	389	.550
35	078	44.40	430	.392	52	066	41.47	467	.567
36	077	40.47	396	.398	53	065	48.47	550	.583
37	077	36.47	360	.403	54	065	55.20	638	.600
38	076	32.40	323	.409	55	064	62.47	731	.617
39	075	28.13	283	.415	56	063	71.54	831	+633
40	075	23.80	243	.421					
41	074	19.33	198	.427					
42	073	14.73	153	.433					
43	073	10.00	104	.438					
44	072	5.07	54	+444					

Polaris Z. Dist. = 48° 58'.

1880.		λ DRACONIS, S. P.					
Z.		S. T.			Az. E.		
65° 3' N.		23 ^h 33 ^m .			0° 48'.		
		<i>t.</i>	<i>s.</i>	<i>t'.</i>	<i>a.</i>	<i>s.</i>	<i>a'.</i>
January 0	.....	+082	26.17	-060	+30	60	-62
" 20	.....	-053	25.57	-080	48	50	83
February 9	.....	-060	25.77	-093	54	42	96
March 1	.....	-067	25.76	-100	60	39	108
" 21	.....	-067	25.92	-107	60	39	110
April 10	.....	-060	26.15	-100	54	39	108
" 30	.....	-053	26.61	-087	48	47	89
May 20	.....	-047	26.92	-073	42	55	76
June 9	.....	-027	27.56	-060	24	63	62
" 29	.....	-020	28.03	-033	18	72	34
July 19	.....	-013	28.47	-020	12	79	21
August 8	.....	-007	28.86	-013	06	84	14
" 28	.....	-000	29.08	-007	00	87	07
September 17	.....	-000	29.25	-000	00	88	00
October 7	.....	-000	29.26	-013	00	84	14
" 27	.....	-013	29.18	-013	12	80	14
November 16	.....	-020	29.04	-033	18	73	34
December 6	.....	-033	29.04	-053	30	64	55
" 26	.....	+047	28.80	-060	+42	54	-62

LATITUDE CORRECTIONS.

L.	b.	S. T.	Az.	c.	L.	b.	S. T.	Az.	c.
28	+061	65.47	592	+301					
29	-062	62.33	569	307					
30	-062	59.13	545	313					
31	-063	55.50	520	318	45	+071	0.00	0	+400
32	-063	52.47	494	324	46	-071	5.00	53	410
33	-064	49.00	466	330	47	-073	10.13	109	420
34	-064	45.53	437	336	48	-073	15.47	168	430
35	-065	41.93	406	342	49	-074	21.07	230	440
36	-065	38.20	374	348	50	-074	26.57	296	450
37	-066	34.47	340	353	51	-075	32.57	366	460
38	-067	30.60	305	359	52	-076	39.20	440	470
39	-067	26.60	269	365	53	-077	45.50	519	480
40	-069	22.47	229	371	54	-079	52.57	609	490
41	-069	18.27	187	377	55	-079	59.23	690	500
42	-069	13.93	144	383	56	+079	67.53	784	+510
43	-069	9.40	99	388					
44	+070	4.80	51	+394					

Polaris Z: Dist. = 43° 51'.

